

Northeastern University



School of Law Library

DENNIS & CO., INC.
Law Book Publishers
251 MAIN STREET
BUFFALO, N.Y. 14203

INVESTIGATION OF CONCENTRATION OF ECONOMIC POWER

TEMPORARY NATIONAL ECONOMIC COMMITTEE

A STUDY MADE BY THE FEDERAL TRADE COMMISSION
FOR THE TEMPORARY NATIONAL ECONOMIC COM-
MITTEE, SEVENTY-SIXTH CONGRESS, THIRD SESSION,
PURSUANT TO PUBLIC RESOLUTION NO. 113 (SEVENTY-
FIFTH CONGRESS), AUTHORIZING AND DIRECTING A
SELECT COMMITTEE TO MAKE A FULL AND COMPLETE
STUDY AND INVESTIGATION WITH RESPECT TO THE
CONCENTRATION OF ECONOMIC POWER IN, AND
FINANCIAL CONTROL OVER, PRODUCTION AND
DISTRIBUTION OF GOODS AND SERVICES

MONOGRAPH No. 42

THE BASING POINT PROBLEM

Printed for the use of the
Temporary National Economic Committee



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1941

TEMPORARY NATIONAL ECONOMIC COMMITTEE

JOSEPH C. O'MAHONEY, Senator from Wyoming, Chairman
HATTON W. SUMNERS, Representative from Texas, Vice Chairman
JAMES M. MEAD, Senator from New York
WALLACE H. WHITE, Jr., Senator from Maine
CLYDE WILLIAMS, Representative from Missouri
B. CARROLL REECE, Representative from Tennessee

THURMAN W. ARNOLD, Assistant Attorney General
HUGH COX, Special Assistant to the Attorney General
Representing the Department of Justice

SUMNER T. PIKE, Commissioner
Representing the Securities and Exchange Commission

GARLAND S. FERGUSON, Commissioner
*EWIN L. DAVIS, Chairman
Representing the Federal Trade Commission

ISADOR LUBIN, Commissioner of Labor Statistics,
*A. FORD HINRICHS, Chief Economist, Bureau of Labor Statistics
Representing the Department of Labor

JOSEPH J. O'CONNELL, JR., Special Assistant to the General Counsel
*CHARLES L. KADES, Special Assistant to the General Counsel
Representing the Department of the Treasury

WAYNE C. TAYLOR, Under Secretary of Commerce
*M. JOSEPH MEEHAN, Chief Statistician, Bureau of Foreign and Domestic Commerce
Representing the Department of Commerce

* * *

LEON HENDERSON, Economic Coordinator
DEWEY ANDERSON, Executive Secretary
THEODORE J. KREPS, Economic Adviser

*Alternates

MONOGRAPH No. 42

THE BASING POINT PROBLEM

by

THE FEDERAL TRADE COMMISSION

ACKNOWLEDGMENT

This monograph is a compilation of exhibits offered as testimony by the United States Steel Corporation and the Federal Trade Commission on the subject of the basing point problem.

The Temporary National Economic Committee is greatly indebted to the organizations submitting this material.

The status of the materials in this volume is precisely the same as that of other carefully prepared testimony when given by individual witnesses; it is information submitted for Committee deliberation. No matter what the official capacity of the witness or author may be, the publication of his testimony, report, or monograph by the Committee in no way signifies nor implies assent to, or approval of, any of the facts, opinions, or recommendations, nor acceptance thereof in whole or in part by the members of the Temporary National Economic Committee, individually or collectively. Sole and undivided responsibility for every statement in such testimony, reports, or monographs rests entirely upon the respective authors.

(Signed) JOSEPH C. O'MAHONEY,
Chairman, Temporary National Economic Committee

TABLE OF CONTENTS

	Page
Letter of transmittal.....	XI
MONOPOLY AND COMPETITION IN STEEL	
Visible effects of identical delivered prices.....	1
Implications of identical delivered prices.....	3
Indicators of monopoly.....	4
Effects of identical delivered prices.....	4
Effects of partial competition.....	4
Monopoly leads to Government control.....	5
Competition.....	6
Approach to the problem.....	8
SOME FACTORS IN THE PRICING OF STEEL	
Introduction.....	11
The demand for steel.....	12
Immediate source of demand.....	12
Geographic distribution.....	13
Characteristics of demand.....	14
Derived nature of demand.....	14
Durability and demand.....	14
Postponability of purchase of durable goods.....	14
Total demand for steel is inelastic.....	15
Effect of the substitution factor.....	15
Potential elasticity of demand from a particular producer.....	16
The supply of steel.....	16
Geographic concentration.....	16
Technological aspects.....	18
Capital investment requirements.....	19
Factors in expenditures for new plants and equipment.....	20
Source of funds.....	20
Incentives for investment:	
Profit motive.....	20
Obsolescence.....	20
Size and number of producers.....	20
Channels of distribution.....	21
Jobbers and warehouses.....	21
Importance of outlets.....	21
Summary.....	21
Characteristics of cost in the industry.....	22
"Overhead" or "fixed" costs.....	22
"Additional" costs.....	22
Average costs.....	23
The dynamics of the market for steel.....	23
Costs and demand.....	23
Psychological factors.....	24
Characteristic patterns of action by sellers in the market for steel.....	24
The basing point method of quoting delivered prices.....	24
Economic roots of the basing point method.....	25
Relation of competition to profits, capacity, and costs of distribution.....	25
Profits.....	26
Capacity.....	26
Distribution costs.....	27
Selling expense.....	27
Freight absorption.....	27

Conclusion:	Page
The function of the steel industry in the national economy.....	28
As a source of raw material.....	28
As a factor in employment.....	29
As a factor in the growth of the Nation.....	30
 THE BASING POINT METHOD OF QUOTING DELIVERED PRICES	
IN THE STEEL INDUSTRY	
Foreword.....	31
The operation of the basing point method.....	31
Delivered prices.....	31
Pittsburgh plus.....	31
Basing point, multiple basing point system.....	32
Calculation of delivered prices.....	32
Applicable basing point.....	32
Price absorption.....	32
Freight absorption—mill net return.....	32
Freight disadvantage.....	32
Market penetration.....	34
Market inter-penetration—cross-hauling.....	34
So-called "phantom freight"—freight advantage.....	34
Basing point price differential.....	36
"Phantom freight" arising from water transportation.....	36
Variable mill net returns.....	36
Geographical price discrimination.....	37
Natural market territory.....	37
Effect of new basing point.....	40
Extras, base prices, delivered prices.....	40
Historical material.....	41
Criticisms of the basing point method.....	43
1. "Perfect competition" and the steel industry.....	43
(a) Geographical separation of producers.....	45
(b) Size of plants.....	45
(c) The nature of the demand for steel.....	46
(d) Fluctuations of demand in the business cycle.....	47
(e) Costs in the steel industry.....	47
(f) Cyclical fluctuations and overhead costs.....	48
2. Price leadership.....	48
3. Elimination of competition.....	50
(a) Identical delivered prices.....	50
(b) Where is the market for steel?.....	54
(c) High and inflexible prices.....	55
4. Undue concentration of production facilities.....	58
5. Excess capacity.....	61
6. Alleged price discrimination.....	63
(a) So-called "phantom freight".....	63
(1) Non-basing point mill.....	63
(i) Mills far from a basing point.....	66
(ii) Mills near a basing point.....	68
(2) Use of cheaper means of transportation.....	70
(i) Water deliveries.....	70
(ii) Truck deliveries.....	73
(b) Freight absorption.....	74
(1) General discussion.....	74
(2) Cross-hauling.....	76
(c) Summary.....	78
The proposed alternative to the basing point method.....	78
1. Introduction.....	78
2. The proposed uniform f. o. b. mill price system.....	79
(a) "Perfect competition" and the uniform f. o. b. mill price system.....	80
(b) The effects of the uniform f. o. b. mill price system.....	81
(1) The nature and extent of competition.....	81
(2) Price leadership.....	86
(3) Concentration of production facilities.....	86
(4) Excess capacity.....	87
(5) Price discrimination.....	87
(6) The cost of the system.....	88
Summary.....	88

AN ANALYSIS OF THE BASING POINT SYSTEM OF DELIVERED PRICES AS PRESENTED BY UNITED STATES STEEL CORPORATION IN "EXHIBITS NOS. 1410 AND 1418"

	Page
Introduction.....	91
The basic issue is whether the basing point system of identical delivered prices is competitive or monopolistic.....	92
The objections to the basing point system are grounded upon tangible legal evidence of collusive price control and not upon abstract criteria:	
(a) Continuation of specific agreements formulated during N. R. A. Code period.....	94
(b) Recent collaboration among competitors on base prices.....	98
(c) Recent collaboration among competitors on "extras".....	101
(d) Recent collaboration on uniform delivery charges.....	102
(e) Relation between price leadership and collaboration among competitors.....	105
(f) Degree of observance of basing point system.....	106
The basing point system was not a natural evolution inhering in the peculiar economic nature of the industry, but was devised by competitors as a means of eliminating price competition.....	107
The collection of "phantom freight" charges is inherent in the basing point system of delivered prices and the amounts collected are proportioned to the system's objective of maintaining identical delivered prices.....	110
The so-called "absorption" of freight charges is inherent in the basing point system and the amounts absorbed are proportioned to the system's objective of maintaining identical delivered prices.....	113
The corporation recognizes the systematically varying mill net returns represented by "phantom freight" and "freight absorption" are differences in price and consequently discriminations in price.....	116
The steel industry's use of the basing point system conforms to the economic specifications of monopoly and is not consistent with the economic concepts of a competitive economy:	
(a) The corporation's claim that identical delivered prices result from the perfect competition of a free market.....	120
(b) The corporation's distortion of economic theory as to the nature and location of free markets.....	121
(c) The corporation's admission that price discrimination is not consonant with perfect competition.....	122
(d) The corporation's contrast between physical conditions in the steel industry and concepts of perfect competition.....	123
(e) The corporation's claim that the price of and demand for steel are unrelated.....	124
(f) The corporation's claim that prices and profits are reasonable.....	126
The corporation defends certain uneconomic results of the basing point system on the principle of vested interests:	
(a) The corporation's defense of excess capacity.....	130
(b) The corporation's defense of existing mill locations.....	133
(c) The corporation's use of overhead and capital costs to justify the basing point system.....	134
(d) The corporation's claim that substitution of f. o. b. mill pricing for the basing point system would dislocate industry and create monopolistic conditions.....	135
The corporation has misstated the attitude of the Federal Trade Commission regarding alternatives to the basing point system.....	138
The steel industry should be prevented from continuing to restrain price competition through use of the basing point system or through any equivalent method.....	139
FEDERAL TRADE COMMISSION'S SUMMATION OF THE MONOPOLISTIC CHARACTERISTICS OF THE BASING POINT SYSTEM	
LETTER TO SENATOR O'MAHONEY FROM BENJAMIN F. FAIRLESS AND REPLY THERETO BY WALTER B. WOODEN	

SCHEDULE OF TABLES AND DIAGRAMS

TABLES

	Page
1. Percentage distribution of hot rolled iron and steel-production among major consuming industries.....	13
2. Estimated assembly costs in the production of pig iron, summer of 1937.....	17
3. Percentage distribution of capacity among producers of steel ingots and steel for castings—1938.....	20
4. United States Steel Corporation and subsidiaries components of "fixed" costs, under 1938 conditions.....	22
5. United States Steel Corporation and subsidiaries percentage of "fixed" to total costs at various rates of operation, under 1938 conditions.....	22
6. United States Steel Corporation and subsidiaries components of "additional" costs, under 1938 conditions.....	23
7. Ratio of earnings to net assets—1929 to 1937, inclusive (earnings before interest in percent of total assets less current liabilities)—steel industry compared with other industries.....	26
8. Distribution costs of 312 manufacturers, 1931.....	27
9. Selling expenses and advertising and promotion costs of 312 manufacturers in 1931.....	28
10. Indexes of prices.....	29

DIAGRAMS

1. How the delivered price is computed.....	33
2. Explanation of freight disadvantage and freight absorption.....	33
3. Explanation of first type of freight advantage and so-called "phantom freight".....	35
4. Explanation of second type of freight advantage and so-called "phantom freight".....	35
5. Determination of boundary between natural market territories.....	38
6. How shipping beyond boundary of natural market territory reduces mill net.....	38
7. Nonbasing point mill.....	39
8. Effect of naming new basing point.....	39
9. Illustration of cross hauling.....	40
10. Mill net returns of nonbasing point mill.....	64
11. Freight rates from Pittsburgh to certain important consuming centers.....	64
12. Effect of differential between prices at basing points.....	67
13. "Phantom freight" and freight absorption in immediate basing point area.....	69
14. Water shipment may merely reduce freight absorption.....	72
15. Natural selling territory increased by use of water route.....	72
16. Market territories of major mills producing steel sheets.....	facing 83
17. Detailed map of counties in western Pennsylvania and eastern Ohio.....	facing 84

LETTER OF TRANSMITTAL

FEDERAL TRADE COMMISSION,
Washington.

DR. H. DEWEY ANDERSON,
Executive Secretary, Temporary National Economic Committee,
Washington, D. C.

MY DEAR DR. ANDERSON: For nearly 20 years a very important controversy has existed between industry and Government experts engaged in the enforcement of the antitrust laws over the question of whether the use of a basing-point system by an industry eliminates price competition in that industry. Government experts have generally been of the opinion that the use of a basing-point system does eliminate price competition. Industry has invariably contended that it does not.

From the standpoint of the enforcement of the antitrust laws the issue is still undecided. In 1924 the Federal Trade Commission issued a cease and desist order against the United States Steel Corporation, ordering this corporation to abandon the use of what was known as the "single basing-point system." This was the first time that a basing-point system had been proceeded against by a Federal agency charged with enforcement of the antitrust laws. The system condemned by the Commission was popularly known in the steel industry as "Pittsburgh plus." Following the order of the Commission the steel industry adopted what is known as a "multiple basing-point system."

The Commission's order to cease and desist from using the single basing-point system, issued against the United States Steel Corporation in 1924, was not contested by the steel industry until the passage of the Wheeler-Lea Act in 1938. This act would have made this order of the Commission final unless appealed from within 2 months after the passage of the act. The United States Steel Corporation is therefore at the present time petitioning the courts to set aside the Commission's order in the "Pittsburgh plus" case.

Since the issuance of the Commission's order against "Pittsburgh plus," the multiple basing-point system and variations of it known technically as "zone-pricing systems" or "freight equalization systems," have spread rapidly in American industry. Many of the products of heavy industries are priced by basing-point or analogous systems. During the period of N. R. A. the codes revealed that such systems were employed in the following industries: Iron and steel, lime, lumber, glass container, builders' supplies, farm equipment, ice, road machinery, paint and varnish, business furniture, liquefied gas, auto parts, ladder, paper and pulp, structural clay, china and porcelain, reinforcing materials, vitrified clay sewer pipe, antifriction bearing, some wholesale food and grocery products, end-grain strip wood block, construction machinery, paper bag, lye, wholesale coal, and others.

In July 1937 the Federal Trade Commission instituted proceedings against the cement industry for employing a multiple basing-point system, and the evidence taken is now being briefed. The cement case of the Commission is the first one in antitrust enforcement against a multiple basing-point system. For the first time, therefore, the multiple basing-point system may reach the courts for final determination of whether such a system is or is not a monopolistic price-fixing device.

When the Temporary National Economic Committee was created, the Committee assigned to the Federal Trade Commission the task of making for the Committee an analysis of the effects of a basing-point system on price competition. In making this assignment the Committee recognized the fact that the Federal Trade Commission had had extensive experience with basing-point systems.

On November 20, 1935, President Roosevelt sent to the Federal Trade Commission evidence that in three instances, involving substantial purchases of steel sheet piling for use on federally financed construction projects, the several bidders quoted identical delivered prices. The President requested the Commission to "examine into the fairness and reasonableness of the bids submitted for steel" on these three projects and to submit a "report and recommendations."

On June 10, 1936, the Federal Trade Commission submitted to the President its report in compliance with this request. This report showed that the basing-point system of pricing steel sheet piling had produced identical bids to the Government, and contended that the basing-point system in the steel industry was a monopolistic device. The report of the Commission was referred to Attorney General Hugh Cummings for comment. On April 26, 1937, the Attorney General wrote President Roosevelt in part as follows concerning the Steel Sheet Piling Report of the Federal Trade Commission:

The question before us is broader, however, than that of identical bidding in the steel industry. The type of practices complained of in this instance is widespread throughout many of the basic industries of the country. The difficulty in correcting this situation raises the whole question as to the adequacy of the present Antitrust Laws for the solution of the monopoly problem as it now exists in the United States.

In my opinion, the time has come for the Federal Government to undertake a restatement of the law designed to prevent monopoly and unfair competition. This proceeds from the conviction that the present laws have not operated to give adequate protection to the public against monopolistic practices.

* * * * *

I therefore recommend that there be set up a committee to study the antitrust laws as to their adequacy, their enforcement, and the desirability of amendment, extension, and clarification. The Committee should have power to enlist the aid of consultant groups both within and without the Government, as the studies will naturally cover a wide area including the relation of antimonopoly policies to such subjects as patents, taxation, commerce, manufacturing, farming, and labor.

The Federal Trade Commission presented to the Temporary National Economic Committee an analysis of the operation of the basing-point system in the steel industry, which included a monograph entitled "Monopoly and Competition in Steel" (exhibit 358)¹ and expert testimony by Dr. Frank A. Fetter, of Princeton University, and members of the Commission's staff. Subsequently, the United States Steel Corporation submitted to the Temporary National Economic Committee a comprehensive defense of the basing-point

¹ Hearings before T. N. E. C. Part 5, p. 2192.

system, challenging the position taken by the Commission that the basing-point system did repress competition in the steel industry. This material was in the form of two pamphlets, entitled "Some Factors in the Pricing of Steel" (exhibit 1410),² and "The Basing-Point Method of Quoting Delivered Prices in the Steel Industry" (exhibit 1418).³ In accordance with its customary procedure, the Temporary National Economic Committee referred the documents of the Steel Corporation to the Federal Trade Commission. After studying these documents, the Commission requested an opportunity to question before the committee the parties responsible for their preparation. At the same time, Mr. Walter B. Wooden and Mr. Hugh E. White, of the staff of the Commission, prepared a rejoinder to the monographs of the corporation. This document, entitled "An Analysis of the Basing-Point System of Delivered Prices as Presented by the United States Steel Corporation in Exhibits 1410 and 1418 for Identification," was submitted to the committee for the record (exhibit 2242).⁴

Mr. Wooden is an assistant chief counsel of the Federal Trade Commission and is the chief trial attorney in the pending case of the Commission against the cement industry. When "Pittsburgh plus" was before the Commission, Mr. Wooden was in charge of the Commission's Chicago office and assisted in the gathering of evidence for this now historic case. As far back as 1923 Mr. Wooden made a study of the lumber industry for the Commission, including a study of basing-point practices in that industry. Mr. Wooden has also been chairman of the Commission's basing-point committee since its inception several years ago.

Mr. White, also a member of that committee, was an important figure in the inception and trial of the "Pittsburgh plus" case by the Commission. As secretary of the Minneapolis Traffic Association and an assistant to the president of the Minneapolis Steel & Machinery Co. and traffic manager of this company, Mr. White had a broad background of experience in commercial practices and with the practical details of railroad transportation. When approximately 800 western and midwestern steel fabricators comprising the Western Association of Rolled Steel Consumers joined with an organization known as the Associated States Opposing Pittsburgh Plus, comprising 32 States fighting this pricing system, the services of Mr. White were drafted in preparing the complaint which was lodged with the Federal Trade Commission. Subsequently, Mr. White entered the service of the Federal Trade Commission and assisted the Commission in its trial of "Pittsburgh plus." After the conclusion of this case, he remained with the Commission and became one of the Commission's experts on basing-point systems.

The Temporary National Economic Committee thus produced for the record first-rate material on the pros and cons of the economic effects of basing-point systems. Accordingly, it was suggested to the Committee that a separate monograph be published on the basing-point system, incorporating this material. This monograph, it was felt, would afford scholars and students an unusual opportunity to examine for themselves the nature of this issue.

²Ibid., Part 26, p. 13893.

³Ibid., Part 27, p. 14619.

⁴Ibid., Part 27, p. 14548.

Included here are some excerpts from testimony of representatives of the United States Steel Corporation who appeared before the committee to be questioned by representatives of the Federal Trade Commission concerning the factual material and conclusions reached in the exhibits offered by the corporation entitled "Some Factors in the Pricing of Steel" and "The Basing-Point Method of Quoting Delivered Prices in the Steel Industry."

The Commission's representatives took the position, in summarizing the testimony of these representatives of the steel industry at the hearings, which occurred on January 26, 27, 29, and 30, 1940, that whereas the exhibits of the corporation had asserted that when the basing-point system was observed in the steel industry it did not destroy price competition, representatives of the Steel Corporation contradicted this contention in their testimony. Representatives of the Commission contended that witnesses for the corporation had introduced a novel defense of the basing-point system in the steel industry by stating that the system did not repress price competition only because it was not always observed, while admitting that if it were wholly observed it would eliminate price competition. If that contention is well grounded, the effect of the testimony of the representatives of the corporation, it would seem, was to destroy the theoretical defense of the basing-point system contained in the corporation's exhibits. The corporation objected to this construction of the testimony offered by its representatives. The objections of the corporation were embodied in a letter to the committee. This letter and a reply thereto by Mr. Walter B. Wooden were made a part of the record. It is suggested that students interested in making a proper appraisal of this issue consult the complete record of the testimony of the representatives of the corporation, contained in Part 26 of the Hearings before the Temporary National Economic Committee. Only the most pertinent excerpts bearing upon this issue have been selected for this monograph so as to give the student a brief background on this question.

Sincerely,

WILLIS J. BALLINGER,
*Director of Temporary National Economic Committee Studies
for the Federal Trade Commission.*

FEBRUARY 6, 1941.

MONOPOLY AND COMPETITION IN STEEL¹

The following outline describes the price relationships which the Commission has reason to believe exist in the steel industry. The statements are based on investigations of the industry made by the Commission at various times. They are presented for the preliminary consideration of the Temporary National Economic Committee, and will be further developed as the Committee's investigation proceeds. Although some changes in method were introduced in June 1938, the fundamentals of the steel pricing system were not affected.

Briefly, the basing point system in steel operates as follows: For each particular steel product a number of points have been selected at which "base prices" are quoted. The delivered price at any other point is computed by adding to the base price at each basing point the railway freight charge from that point to point of delivery and adopting the smallest of these totals. The steel may actually be shipped from a great distance or from next door to the customer's plant, but the delivered price is the same in all cases, that is, the customer pays as if the steel were always shipped from the "governing" basing point, i. e., that giving the lowest delivered cost according to the formula.

This is the skeleton outline of the system. In practice it is complicated by the existence of different basing points, for different steel products, and by a system of "extras," identical for all companies, representing special quality, size, shape, or quantity. In effect, however, the formula enables all steel producers, without the necessity of special consultation, to arrive at an identical delivered price for any order of steel delivered at any point in the United States. With occasional lapses, the system works, and the buyer normally receives identical quotations from all bidders.

The original basing point system in the industry was the so-called Pittsburgh Plus, under which steel was sold at a delivered price equal to the Pittsburgh price plus freight from Pittsburgh. Other basing points have since been established, and the present is a multiple system.

This report deals with the basing-point system as the method for establishing the identical delivered prices found in the steel industry. It should be made clear that the objective of this examination is not to find some other mechanism for producing the same effect, but to consider the effects of identical delivered prices, whether derived from the use of a basing-point formula, or by any other method.

VISIBLE EFFECTS OF IDENTICAL DELIVERED PRICES

When the basing-point system is operating smoothly, it appears that quotations on steel of a given quality and quantity are identical at any given point of delivery. The formula, covering base price and rail freight from the governing basing point, is known to all members of the industry. Mills located at points other than the basing point use the standard formula as if they were located there.

To the customer, at his location, there is no difference between the quality and delivered price offered by all the bidders. Occasional variations from this perfect identity are observed, but only during short periods when there was a temporary flurry of price cutting. Such flurries have been an incident of practically all price-fixing systems. They occurred even in the days of signed price agreements in the steel industry.

On the surface, the producers approach the consumer with a united front. Competition in such crude matters as price and quality has been put aside, and all that seems to remain is a gentlemanly emulation in the art of making friends and influencing people.

Secret discounts or concessions in quantity or quality may continue to exercise an influence of a more material character in the case of strong and influential private purchasers. Small and medium-sized private buyers pay the formula price. Public bodies, not being permitted to accept secret favors, have no legal reason for choice, there being no lowest bidder, and are reduced to making awards by lot.

¹ Exhibit No. 358, Hearings before Temporary National Economic Committee, pt. 5, p. 2192.

The available evidence indicates that secret violation of the identical delivered price system is seldom of such importance as to prevent the general economic effects of controlled prices.

Since the delivered price quoted is the same among bidders with many different freight costs, the net amount received or mill realization varies among the bidders, depending on their distance from the point of delivery.

A plant not located at a basing point will charge even to customers located at its own door the base price plus freight from the governing basing point. But in selling to a customer located at the basing point it will quote only the base price, and will deduct the actual freight from its plant to the customer at that basing point, leaving as a net return the base price minus freight.

A plant located at a basing point will sell its product at all points within the area where the delivered price is governed by that basing point, at the same base price, plus the actual rail freight to point of delivery. When bidding outside this area, however, it must "absorb" a part of the freight, which means accepting a lower net price in order to match the delivered price which is computed by the standard formula from some other basing point. That is, outside the area governed by its own basing point, the basing-point mill will accept varying net prices in the same way as a mill not located at a basing point.

Thus the immediate effect of this artificial price system is to distort the area of distribution of each mill, in such a way that its net return per ton of steel from different customers is generally different.

The customer who is nearest the place of production does not necessarily receive the lowest delivered price for steel.

If the nearby place of production is not a basing point, the customer located there must nevertheless pay the equivalent of rail freight from the governing basing point.

Studies of actual sales of steel show that mills deliver steel in the neighborhood of other mills that are producing steel of the same kind, and these in turn ship their product to the neighborhood of their rivals, or even beyond. Physically this cross-hauling is a pure waste; it could be justified only if some other form of economy were to be obtained by means of an interchange of identical products.

Between two interconnected power systems, for example, power may flow in one direction at one time and back at another, because of differences in the timing of peak loads. But no such excuse can be found for cross-hauling in steel. Occasionally an abnormal demand for steel may appear first in one place and then in another, so as to overload the nearest producing plants and require importation from others. The constant cross-hauling of steel, however, is a different matter. It is a continual and simultaneous process. It unquestionably shows that mills do not ordinarily supply the nearest customers before looking to more distant ones. The cost of the wasted freight must be borne in the first instance by the injured communities and in the last analysis by the general public in one form or another. The cost is actually covered by maintaining base prices so high that a producer can ship steel for long distances past another producing mill and still find the business worth taking.

Finally, the evidence at hand shows what is inherent in the pricing plan, that a customer not located at a basing point but located near a steel mill is deprived of the benefit of the low haulage cost from the nearest mill to his door. The neighboring mill will, to be sure, offer him a bid, but no better than he can get from mills farther away. Under this pricing system he would be as cheaply supplied if the nearby mill did not exist.

To call the relation of a mill to its nearest customers a "local monopoly" is to confuse the issue. The correct term is "advantage of location"; it represents a natural physical fact: low cost of transportation. This is no more properly called monopoly than would be the possession of a low-cost plant or an unusually efficient personnel. Since the avowed purpose of competition is to allow the consumers the use of the lowest cost methods, any economy in the physical factors of production, including economy of transportation, is a legitimate competitive factor.

Moreover, a customer so located that steel can be shipped to him by barge or by truck, at less than railway freight costs, is not usually allowed the benefit of this advantage. The mill may ship by water, or by truck, but with relatively few exceptions the quoted price is based on rail freight. It would seem that the reason for using rail freights in all cases is that only by so doing can identical delivered quotations be conveniently assured.

The system appears to be devised not as a means of computing actual delivered costs, but of assuring the equality of price computation at any point of delivery.

This situation must involve a general and continuous waste, since it would obviously be more efficient if customers were able to buy at a lower cost from the nearest available source. It is a system that makes a profit for the producer by wasting the customer's money.

IMPLICATIONS OF IDENTICAL DELIVERED PRICES

It is reasonable to assume that the industry succeeds or expects to succeed in making the customer pay for the wastes of cross-hauling, and enough more to furnish a motive for the self-discipline involved in an identical delivered price system. The base prices established must be intended to produce a profit on the business as a whole, even though as an incident they may require a company to accept a comparatively low net return on some particular sale.

Experience indicates, in fact, that when the system temporarily breaks down, prices fall.

The pricing system in steel is often called an "umbrella," the implication being that it holds up a price level under which mills of all degrees of efficiency or obsolescence find shelter. There appears to be a tendency for obsolete mills to survive after new and more efficient plants have entered the field, resulting in excess capacity and a low average percentage of operation. As will be noted later, the value of an old plant would be more easily defended if it actually served a neighboring market at a net saving to the customers.

Overequipping in the industry, with failure to eliminate the least efficient plants, tends to discourage technological progress, but its chief effect appears to have been to accustom the industry to the idea of a low ratio of production to capacity. The industry has felt entitled to a price level that will allow it to make a profit when operating at less than 40 percent of capacity, although this required percentage increased with the base price reductions of June 1938.

But since the capital costs are a large factor in steel making, in effect the public is required to pay, on a given tonnage of steel, the capital charges on a larger plant investment than is needed to produce that tonnage. The price flurry of June 1938, reduced base prices; the industry was forced to operate at better than 50 percent of capacity to make a profit. This change was regarded by the industry as deplorable, though it led to large increases in production and consequently in employment. "The situation was competitive," Mr. Grace said, and he hoped that it had been cured."²

If the concept of price adopted in Pittsburgh plus case in 1924 is sound under the present law, the basing point practice may be regarded as one of systematic price discrimination designed to serve the interests of the sellers, as a group, against the interests of such buyers as desire price competition, and of consumers in general. Such systematic discrimination should be distinguished from a different type—the sporadic, unorganized price discrimination found in an unprotected competitive market where unfair practices are permitted.

Discrimination in the absence of an identical delivered price system takes the sporadic form of charging profitable prices in nearby territory and accepting a lower net return on sales to customers who are in a position to buy from a rival's territory. This may easily become price raiding, a use of financial power to overwhelm a financially weaker competitor. By raiding one small competitor after another, a powerful company can acquire numerous plants and destroy competition over a large area, becoming a monopoly of the old fashioned type in which control over prices is obtained by ownership of the bulk of the business. This undesirable situation can be expected to occur if competition without protection against price raiding should be reestablished in industries now under monopoly control.

The custom of charging an extra price for small quantities of steel over the price for large quantities requires the small buyer to pay more for his material, but is not necessarily discriminatory in the sense used in this discussion, since there may be a difference in cost for producing and handling small items. If, however, the difference charged is excessive, it becomes a form of discrimination.

The fact that discrimination in an unprotected market may lead to monopoly is the origin of the opinion, often sincerely held by businessmen, that any kind of competition must inevitably destroy itself, and that only by controlled prices can individual businesses be actually preserved. The Commission regards this line of reasoning as fallacious and disastrous.

² New York Times, October 28, 1938.

The truth should be recognized, that a free market must be protected to prevent price discrimination, or it is likely to permit the survival of the financially strongest rather than of the most efficient. But to sanction private price controls such as those in the steel industry as a protection against price raiding is to establish monopoly by agreement for the sake of avoiding monopoly by capture.

The identical delivered price system in steel preserves the shadow of competition by giving up the substance.

The courts have long since declared it unlawful for a great combination to cut prices in one territory in order to destroy a local competitor, meanwhile making up the deficiency by the profits of other sections. A similar principle should be applicable in a vertically integrated company.

The Federal Trade Commission found in the Pittsburgh plus case that the American Bridge Co. could underbid its competitors because of being able to buy materials from fellow subsidiaries of the United States Steel Corporation at lower prices than other fabricators could obtain them. Since this finding was entered, several other large steel producers have acquired fabricating companies, and thus have opportunities for a similar advantage over independent fabricators.

If such camouflaged discrimination is to be prevented, it would be necessary to insist that separate accounts be kept for all parts of a vertically integrated company as if they were independent concerns, and that these accounts be subject to visitation by representatives of the Government.

INDICATORS OF MONOPOLY

In a heavy staple industry, such as steel, there are certain indicators that may be taken as manifesting the existence or absence of monopoly.

If the demand for steel in a certain district is larger than the neighboring mills can supply, those mills should be running at capacity, unless their costs are higher than the cost of outside mills by more than the freight. If mills are running part time, while steel is being shipped in, monopoly is indicated.

If the supply of steel in a district is larger than the local demand can absorb, there should be no steel coming in, but the local consumers should be fully supplied locally. If steel is being shipped in, and if the fact is not explainable by cost differentials, monopoly is indicated.

Cross-hauling of identical products is a general symptom of failure of competition.

If identical or close bids on delivered steel are received from mills at different distances from the buyer, there is a presumption of monopoly, unless the facts can be explained by differences in cost of production. The only locations at which the receipt of closely similar bids, from diversely situated mills, can be disregarded as indicators are on the borderlines between producing areas.

EFFECTS OF IDENTICAL DELIVERED PRICES

To summarize the effects which we have reason to believe follow from the system of identical delivered prices: The wastes of cross-hauling and of excess capacity and high capital overhead are saddled on the consumer as if they were legitimate costs. Under the guise of freight costs, buyers located at a distance from a basing point even though they purchase from a mill in their own city are charged what amounts to a penalty.

Thus the advantage or disadvantage of location for many buyers is an artificial one, which may be altered by arbitrary private decree through a change in the basing point. Price competition in the steel industry, during all periods when the system is working, is eliminated. High prices, not in conformity with the law of supply and demand, place unreasonable limitations on use of the material. The effect, when combined with that of similar artificial prices in many other lines of production, is a depressed condition which can be kept from utter collapse only by repeated doses of public subsidy.

EFFECTS OF PARTIAL COMPETITION

The fixed-price system in steel sometimes slips momentarily, as it did in June 1938. When the momentary "competition" is cured and peace once more hovers over the industry, competitive practices still crawl here and there under the surface. But such vestigial remnants of competition are not enough to restore a healthy condition.

The industry is adjusted to a condition of monopoly. Its plants are located at points dictated by monopoly practices—many of them are relics of the "Pitts-

burgh plus," under which one principal basing point dominated the price structure.

A temporary restoration of competition is peculiarly painful to the industry because it cannot quickly adapt itself to an unprotected existence. Some of the independents, and some units of the larger companies, born and brought up under the "umbrella," fear to attempt a life of free competition. The desire to restore and maintain a monopolistic scale of prices is therefore a powerful influence in the industry. Moreover, such competition as does occur from time to time in the industry takes the form of sporadic discriminatory price cutting, in which the more powerful companies may use their power to discipline the weaker independents.

The Commission agrees with the industry that unfair forms of competition should not be substituted in place of monopoly. The Commission is opposed to both.

It is recognized that the industry will naturally fear the adjustments necessary for the establishment of healthy competition. The Commission notes in the published hearings of the Subcommittee of the Senate Committee on the Judiciary on S. 10 and S. 3072, March 10, 1936, the following statement in a letter from the late Mr. John Treanor of the Riverside Cement Corporation to Mr. B. H. Rader of the Cement Institute. Although speaking of the cement industry, Mr. Treanor expresses a fear of competition that is common to other industries as well. He says:

"Do you think any of the arguments for the basing-point system which we have thus far advanced, will arouse anything but derision in and out of the Government? They amount to this—that we price this way in order to discourage monopolistic practices and to preserve free competition, etc. This is sheer bunk and hypocrisy. The truth is, of course—that ours is an industry above all others that cannot stand free competition and that must systematically restrain competition or be ruined. We sell in a buyers' market all the time."³

In steel, as the Commission has observed, the normal and wholesome elimination of obsolete plants has not taken place. The industry has become addicted to monopoly as to a habit-forming drug. Its members fear nameless horrors if the drug should be withdrawn. Despite these fears, it remains true that a cure is necessary if the steel industry, together with American business in general, is to be restored to health.

MONOPOLY LEADS TO GOVERNMENT CONTROL

To some extent the steel industry has eliminated obsolete plants, following the process of merger, the choice of plants to be closed being made arbitrarily by those in control of the merger. The Commission calls attention to the fact that here, on a private scale, we see the substitution of arbitrary decision for the impersonal decisions of the free market in an important industry. But the philosophy of the competitive theory which underlies capitalism is that natural death in industry, under the forces of fair competition, is more merciful than death by fiat, and also more clearly in accord with the public interest. It is fair and reasonable that the best man should win, and that the loser should be obliged to hunt for some other source of income. But it is offensive to peace and good morals that a man should be driven out of business by financial power, whether his throat is cut in a sudge, attack or whether he is captured first and killed later.

The experience of business in certain countries shows that if the natural elimination of the less efficient by competition is prevented, and elimination by private fiat is substituted, fiat will finally become the function of government. When the elimination of any members of an industry becomes the function of government, practices and injustices of an alarming kind have been observed.

The Commission points out that the drift toward monopoly involves the disquieting prospect that decisions, once the product of an impersonal economic necessity, may become the function of private or public dictators under conditions that offer the victims no avenue of escape.

The ability to decide on a price and hold to it regardless of demand, which is the essence of monopoly, is a prime factor in establishing the vicious circle of high prices, restricted production, and reduced employment so widely condemned as "scarcity economies." Starting with a price level designed to protect obsolete and unnecessary plants, and therefore having long periods of part-time operation and high overhead, the steel industry has established a habit of low production and high cost that seems to justify high prices. The demand is thereby restricted,

³ U. S. Senate Comm. on the Judiciary. Hearings of Subcommittee on S. 10, S. 3072, Mar. 10, 1936, p. 537.

and the vicious circle is completed by the continuance of high costs based on restricted output.

Moreover, in a product like steel which serves as raw material for other products, and for the machines with which other products are made, any unnecessary cost will be multiplied from step to step throughout industry so far as the influence of steel extends. The consumer is burdened with monopoly costs of steel multiplied several fold.

Unless and until this vicious circle of scarcity and unemployment can be broken, it is clear that it will act to grip the business world in paralysis. The practices of the steel industry alone may not ruin the capitalist system, but if they are reinforced by monopolistic practices in other industries, the total effect may come to be a strangulation of the blood stream of trade. Monopoly, like counterfeiting, is a profitable business for the first comer, but is subject to diminishing returns when it is more widely practiced.

There appears to be only one way in which the circle of high prices, low production, and unemployment can be broken. That is through the restoration of price competition in accord with the ancient rule of capitalism, that at a low rate of production an industry ought to be losing money. The alternative is the abandonment of capitalism and experimentation with authoritarian controls.

Capitalist theory has always held that industry was expected to produce in the hope of profit, not that it was expected to stand idle at a profit. If the rewards of full-time industrial production are to be given equally for half-time work it is inevitable that labor and agriculture must also be supported on a half-time basis.

The Commission is not impressed with the argument that as steel output falls off and costs rise, it is necessary or desirable to maintain prices in an effort to break even. Such an argument violates the fundamental principles of capitalism. On the contrary, it is necessary and desirable to reduce prices in a falling market in an effort to increase tonnage and cut costs.

If free competition is not restored, the alternative will be public control of the details of business policy, including prices, wages, and production schedules. If private monopoly is permitted to spread through the greater part of the business system, public control appears to be unavoidable.

The Commission calls attention to the sequence of events in countries where the cartel form of monopoly has been encouraged. Centralization of power is the forerunner of a state, in which business, both small and large, is entirely subject to the direction of the government.

To the Commission the lesson seems clear that democratic liberty requires, as one of its foundation stones, the preservation and protection of a sufficient area of free capitalism to balance the necessary centralization of public utilities and other natural monopolies.

Freedom depends on preserving a wide field of opportunity for free initiative. Universal price controls constitute a repudiation of economic freedom and a demand for some form of authoritarian government.

COMPETITION

It is suggested that the relationship of competition, discrimination, and monopoly requires more definite clarification and legal definition in the public interest. Business in this country has passed through two stages on the way to the establishment of law and order. The first, or pioneer, stage was one of unrestrained discriminatory competition, in which financial power and influence were often used as weapons to destroy competitors. By a natural process of evolution, businessmen in certain industries organized private agreements for preventing competition of a kind unprofitable to themselves.

These private organizations for bringing order into business have not eliminated discrimination but have organized it in their own interest. Organized price controls have turned out to be monopolistic and oppressive to the consumer, and a source of depression and paralysis to trade. It is necessary now to pass on into a stage of established law, in which the required protection against discrimination is given by law to competitors and consumers alike.

Without an effective guarantee of protection against unfair and discriminatory attack, businessmen can hardly be expected to relinquish voluntarily their efforts to maintain private monopolistic systems for mutual self-protection.

As a basis for a sound policy of fair competition as distinguished from monopoly, it is believed to be essential to recognize the fundamental objectives of the free market as applied to steel. The free market is expected to give to the consumer the benefit of the lowest cost of production, and to reward the producer who elim-

inates waste. The market is expected to reward not only efficient production within the plant, but also efficiency in choice of location which minimizes transportation costs.

It is recognized that a market, unless policed to prevent discriminatory prices and other unfair methods, may fail to distinguish between efficiency and the advantages of financial power, and may give the rewards to power rather than to efficiency, as illustrated by the effects of unfair competition. Free markets, therefore, must be policed to prevent interference by dominant force whether financial or physical.

The market, finally, is supposed to provide a competitive mechanism that will automatically eliminate obsolete capital, either by forcing obsolete steel companies out of business or by forcing them to scale down their liabilities. Definitions of economic terms must be drawn not from tradition, or from the "custom of the trade" as shaped by immediate private advantage, but from experience with the effects of such practices on the proper functioning of the market.

The Commission believes that a condition of sound competition in the steel industry would be fair to the consumer, efficient as an item in national production, and as nearly as possible free of brutality or cutthroat activities.

Sound competition would be fair to the consumer because it would permit him to have any advantage of buying from the nearest mill, at a minimum cost for freight. It would be fair because the prices he must pay would be under constant competitive pressure, since his local mill could not arbitrarily raise its price without giving up its borderline customers to a rival.

Sound competition would be efficient for the Nation because it would reduce wasteful cross hauling, the cost of which the Nation must bear. It would promote decentralized location of mills, tending to favor the growth of numerous scattered mills close to customers, or in the shortest line between customer and raw material, an important item in terms of economic stability and of national defense.

Sound competition would be largely free of the abuses that have tended to give competition a bad name and have unfortunately driven many businessmen to seek shelter in monopolistic agreements. While the effect of sound competition would be to give rewards to efficiency and proper location combined, it would act upon the less efficient rather by slow pressure than by sudden violence—impersonally rather than by the exercise of personal and arbitrary power.

It appears evident that a condition of sound competition would be favorable to the restoration of free initiative in the steel industry. Initiative may be considered as embodied in two forms, the establishment of new mills in favorable locations, and an active attempt of existing mills to get business by reducing costs to the consumer. Both forms are stifled in the steel industry by the basing point system.

The protection of obsolete plants under the umbrella, by retaining excess capacity in the industry, impairs the incentive to build new and more efficient plants or to secure a better location.

Free initiative in the sense of trying to get business by offering advantages to the consumer is not only restricted under the basing point system, but is regarded as an offense, subject to the danger of retaliation by the industry.

If a mill merely follows the price leaders in a generally observed price system, it has relaxed from competition, and is trusting to some more subtle influence to provide its share of the business. Initiative means leading the price in its own area, and leading it down to the level at which the area of the local mill is effectively protected by freight costs against the loss of its profitable business. Initiative in the form of local self-determination is seldom, if ever, found today in the steel industry.

Local initiative is frowned upon by the leaders of the industry. In 1930, a steel industry leader deplored that "several months ago price instability was permitted to come into our commercial relations." Another high steel executive, saying that price cutting kills business, added: "We have got to be honest." The potential punishment for any serious attempt to violate the basing point price system is price raiding, that soon brings the rebels to terms. It is vital to an understanding of this situation to make clear the ethics on which it is based.

Unethical conduct in selling steel includes those underhand devices by which a company offers material inducements to the buyer while pretending to stick to the concerted formula under which no bid at any given point of delivery will be better than any other bid at the same point. Such methods are abhorred by each member of the industry when used by others to his disadvantage. They violate the so-called ethics by which all the brotherhood is bound together against the consumer.

A chiseler is an unreconstructed capitalist who fails to obey the rules of the monopoly. He may also be dishonest in his methods, but chiseling and dishonesty

are not identical, and the distinction is vital. To accuse a person of dishonesty may be necessary and in the public interest. To use the word "chiseler," however, as meaning merely one who competes by reducing prices without discrimination, is to attack the foundation of free initiative, and to invite autocracy.

The Commission holds no brief for deception, but is convinced that the so-called ethical principle which opposes price competition, forcing it into the form of underhand dealings, is itself contrary to the public interest. We believe that competition in steel should be brought into the open and protected against reprisals that threaten to drive it back into the dark. Suppression of competition breeds deception; the cure is not punishment but freedom and protection of individual rights.

Unfair competition, in addition to various forms of fraud and misrepresentation, includes specifically the use of discrimination for the purpose of price raiding. The Commission believes, as does a large share of the business world, that price raiding is a form of industrial violence; sound competition cannot be preserved unless price raiding is effectively prevented.

APPROACH TO THE PROBLEM

The Commission considers it to be essential to distinguish between protection of the markets and Government control over business.

Protection works from the outside; its examination of business practices is only for the purpose of enforcing the rules of conduct as required for the protection of freedom. Control penetrates the interior of business, impairing or destroying the exercise of legitimate private initiative.

It is recognized that certain public utilities, including transportation, communication, and domestic power distribution, are in some measure required by technical necessity to operate as monopolies. As monopolies these industries have long been subject to a large measure of public control of their prices, wages, and production schedules; in some cases they have been taken into public ownership. The classification of industries as necessary monopolies should be, in the Commission's opinion, kept to as narrow limits as technical considerations permit.

It is suggested that in order to protect competitive business, monopolies must be held to exist only by sufferance in the capitalist system, and to be properly subject to public control in all details affecting the public interest.

Public control over monopolies is to be clearly distinguished from regulation of competitive practices, established to give protection to free competition in industry. The latter does not attempt to fix reasonable prices or to interfere with the countless details within each individual private enterprise.

There is reason to believe that most industrial operations are capable of attaining the highest degree of technical efficiency with plants of moderate size. Even though a modern steel plant may be physically large, it is relatively small in comparison with the total steel business of the United States. If monopoly is to be permitted in such industries, the Commission can see no escape from the necessity of removing them from the privileges of free capitalist management and placing them under Government control.

The Commission denies the necessity for such an outcome in the case of steel. We believe that to socialize the iron and steel industry, probably the leader of American business, would be a dangerous precedent. Such an example might easily spread far through the business world, tending to the break-down of private enterprise and the rise of an authoritarian state.

The Commission therefore suggests that the steel industry, which it believes to be capable of reasonably efficient operation without monopoly, should be definitely separated in public policy from the "natural" monopolies, and treated as a free enterprise. As a free enterprise, it should be given an effective protection that will positively assure it of continuous, sound, and wholesome competition. The larger the area of business in which fair competition can be assured, the wider the margin of safety against the loss of both economic and political freedom.

The prevention of identical delivered prices for steel is, in the Commission's opinion, necessary for the restoration of competitive conditions. This involves the necessity for the elimination of the basing-point system, since the purpose and effect of that system is to prevent price competition. It will also be necessary to prohibit any variation or substitute for the basing-point system, the effect of which is to establish identical delivered prices.

It is submitted that the principles to be applied to the steel industry should be those laid down in the Pittsburgh Plus case when the respondents were ordered to cease and desist:

"From quoting for sale or selling in the course of interstate commerce their said rolled-steel products upon any other basing point than that where the products are manufactured or from which they are shipped.

"From selling or contracting for the sale of or invoicing such steel products in the course of interstate commerce without clearly and distinctly indicating in such sales, or upon such contracts or invoices, how much is charged for such steel products f. o. b. the producing or shipping point, and how much is charged for the actual transportation of such products, if any, from such producing or shipping point to destination."

The open f. o. b. mill price system is essential, in the Commission's opinion, for the maintenance of fair competition in steel. To fulfill this purpose, however, there must be no obligation to maintain any announced price for any time whatsoever. Further detailed regulations required for the protection of any open market need not be listed at length in this preliminary discussion.

The fact that sound conditions can be restored only with considerable trouble and expense is not a sufficient reason for doing nothing, nor for adopting irritating but ineffective half measures. The capitalist system of free initiative is not immortal, but is capable of dying and of dragging down with it the system of democratic government. Monopoly constitutes the death of capitalism and the genesis of authoritarian government.

The steel industry is a focal center of a monopolistic infection which, if not eradicated, may well cause the death of free capitalistic industry in the United States. This Commission is invested by law with the duty of assisting in the protection of competitive capitalism and in its restoration to health. Whatever such protection may cost, we believe it will be less costly to capitalism and to freedom than any alternative.

SOME FACTORS IN THE PRICING OF STEEL¹

This is an analysis made in connection with studies by the United States Steel Corporation in preparation for hearings on the steel industry before the Temporary National Economic Committee.

INTRODUCTION

How much does the price of steel influence the quantity sold? What is the relationship of cost to the price of steel? What degree of price competition is desirable, and possible, in the steel industry? Why does the steel industry quote delivered prices and why does it use the basing point method of quoting delivered prices? Does the steel industry perform its proper function in the national economy? Before these questions can be answered a careful analysis must be made of the fundamental factors underlying the demand-supply situation in the industry.

Subject to some exceptions with respect to particular products, the salient characteristics of demand and supply in the steel industry may be summarized as follows:

- (1) The demand for steel is marked by tremendous cyclical fluctuations.
- (2) The total demand for steel is inelastic, i. e., the total quantity of steel bought from the industry would not be greatly different at any particular time if the price were higher or lower.
- (3) In contrast, the demand for steel from a particular producer usually possesses great potential elasticity. In other words, buyers will readily shift from one producer to another in response to a difference in price. This is due to the informed character of the buying of steel. Buyers have excellent technical knowledge of the product to be purchased; and since nearly all steel is purchased on specification, the identical grade and type of steel may be obtained for the most part from any one of a number of producers. Furthermore, the large size of individual purchases makes it worth-while for buyers to shop for the lowest possible price.
- (4) The cost structure in the industry is marked by substantial fixed costs which must be met regardless of the amount of steel produced.² Even more significant is the fact indicated by the operating experience of the United States Steel Corporation and its subsidiaries over the past ten years that the additional cost per unit of output remains approximately the same regardless of the rate of operations provided labor rates, prices of raw materials, etc. remain constant. As a result of these two characteristics the average cost of each unit of the entire output is higher than the additional cost per additional unit of output for practically the whole range of operations up to the limits of practical capacity. Finally, the cost of labor and of other goods and services purchased from others (which together constitute about 80 percent of the total cost in the case of the subsidiaries of United States Steel Corporation), are largely outside the control of the management of the steel producer.
- (5) Producers of the great bulk of the tonnage of steel products sold in the respective consuming areas are relatively few in number.

These characteristics of the steel industry, of course, do not coincide with the conditions necessary for the "perfect" price competition of classical economic theory. The theory of "perfect" price competition, for example, assumes each buyer and seller to be too small to influence the market price; any seller is supposed to be able to reduce his price and expand his production without fear of reactions

¹ Exhibit No. 1410, Hearings before Temporary National Economic Committee, Pt. 26, p. 13893.

² In the case of the subsidiaries of United States Steel Corporation these costs are approximately 30% of total cost at 40% of capacity operations, 20% at 70% capacity and 15% at 100% capacity.

on the part of competitors. This is not true of the market for steel. As a consequence of potential shiftability of buyers in response to price concessions, there is an incentive to obtain business by price reduction even below average cost as long as the price of the additional units so sold is above the additional cost thereof, but in actual competition in the steel industry such a tendency is modified to some extent by the difficulty of continuing to offer lower prices than competitors since competitors meet price concessions almost immediately. Furthermore, "perfect" price competition does not take into account the consequences of the presence in the market of relatively few, but large, buyers, nor the size of their individual orders. It overlooks the relative difficulty of new producers entering the market and many other factors of importance in the competitive situation in the steel industry. In appraising this situation it should be recognized that the conditions requisite for theoretically "perfect" price condition have rarely, if ever, been approached in any industry, and could never be generally achieved in a manufacturing industry such as steel. Accordingly, it is hardly reasonable to judge competitive practices in the steel industry by imaginary standards based on abstract conditions which cannot possibly be fulfilled, and which probably never have been fulfilled in any industry.

Waiving the reasonableness of the application of the criteria, it is pertinent to inquire what the consequence of "perfect" price competition would be in the steel industry. If such a theoretical state of competition prevailed, each producer would take all the business he could get so long as the price yielded more than the additional cost of producing the additional ton of steel so sold. If the demand exceeded the capacity of existing producers, the price of steel would sky-rocket, being limited only by the magnitude of the demand. If, however, the demand declined to less than the existing capacity, the price would drop abruptly to the level of the additional cost per additional unit of the least efficient producer remaining in the market. In such a situation producers would cover little, if any, of their overhead. Producers, therefore, would be operating at heavy losses whenever existing capacity was not being fully utilized, and would recoup these losses by high prices and large profits during the peak of prosperity. In major depressions the efficient as well as the marginal concern would fail to survive unless it had accumulated an extraordinarily large cash balance.³ Under such conditions existing capacity would be reduced with the result that the steel industry would become a bottle-neck in the succeeding rise in the business cycle by limiting the possibility of increased production and creating a premature boom in prices before the rest of the economy could achieve full employment.

Actually, of course, these characteristics of "perfect" price competition would not be tolerated. The cut-throat struggle in depression and the sharp increases in prices and profits in prosperity, as well as the bottle-neck in capacity, would be the object of attacks by legislators, economists and others.

This paper is an attempt to outline the numerous factors involved in the pricing of steel with the hope that a re-statement of fundamentals will contribute to a clearer understanding of prices and price structure in the steel industry.

THE DEMAND FOR STEEL

IMMEDIATE SOURCE OF DEMAND

Orders for steel come mostly from companies using the products of the steel industry as raw materials in making goods or as equipment in producing services.

Companies purchasing steel have been classified, and estimates of the percentage of the total steel production of the United States purchased by each class have been made as follows:

³ If the subsidiaries of United States Steel Corporation sold steel at a price only equal to the additional cost of additional units of production, it is estimated that the loss to the Corporation would be approximately \$182,100,000 a year. Under these conditions the Corporation could not survive for more than a few years.

TABLE 1.—*Percentage Distribution of Hot Rolled Iron and Steel Production Among Major Consuming Industries*¹

Industry	1938	1932-38 Average	1926-31 Average
Automotive.....	17.3	20.8	16.3
Construction.....	18.8	16.0	19.9
Railroads.....	6.1	10.1	17.9
Container.....	9.1	8.4	4.7
Agriculture.....	4.7	6.0	6.0
Oil, Gas and Water.....	7.4	6.0	8.3
Exports.....	7.5	5.5	5.9
Machinery.....	3.5	4.2	3.8
Furniture and Furnishings.....	3.6	3.6	-----
Shipbuilding.....	1.6	0.9	0.9
Mining.....	0.3	0.5	0.7
Miscellaneous.....	20.1	18.0	² 15.6

¹ M. W. Worthing, *Distribution of Steel Products to Major Consuming Industries*, United States Steel Corporation, October 30, 1939. Computations made by apportioning individual hot-rolled product totals on the basis of Iron Age distribution reports and by allocating jobber shipments to ultimate consumers.

² "Miscellaneous" for the period 1926-31 includes "Furniture and Furnishings."

In connection with the above classification interesting observations may be made. First, the purchasers of steel are principally companies engaged in the production of producers' and consumers' durable goods. An exception is the container industry which manufactures tin cans, an article classified as a perishable good since it is generally used but once and discarded. Second, in recent years there has been a marked increase in the percentage of steel purchased by consumers' durable goods industries, such as the automotive and household appliance industries, and a decrease in the percentage of steel purchased by producers, durable goods industries, such as the railroad industry. In this connection "Miscellaneous," which has shown such rapid growth, includes many industries producing consumers' durable goods such as refrigerators, air conditioning units, stoves, etc. Third, "Exports" in some years account for an appreciable amount of total steel sold. Since the economics of export trade involves conditions not present in the domestic market, the subject of prices and pricing methods in the steel export trade have not been included in this study.

Most industries purchasing steel are characterized by large companies; in the automotive, container, agricultural implements, household durable goods and shipbuilding industries, a relatively few large companies comprise a substantial percentage of the total production of their respective industries.⁴ In purchasing their steel requirements these large companies usually come into the market with orders of considerable magnitude. The demand for steel therefore consists, to a great degree, in large-sized orders placed by relatively few companies.⁵

GEOGRAPHIC DISTRIBUTION

Orders for steel arise for the most part in concentrated geographical areas. The bulk of tonnage business originates in a belt extending east of the Mississippi, and north of the Ohio rivers, tapering off toward Philadelphia and New York; but important markets exist outside this zone, particularly for products required by the oil and canning industries. Although major markets for particular steel products vary both as to location and degree of importance, the principal centers of the composite demand for steel in their general order of precedence are:⁶

- | | | |
|-----------------|------------------|----------------|
| 1. Detroit | 6. Youngstown | 11. Cincinnati |
| 2. Chicago-Gary | 7. Milwaukee | 12. Houston |
| 3. Pittsburgh | 8. San Francisco | 13. Buffalo |
| 4. Cleveland | 9. Newark | 14. St. Louis |
| 5. Los Angeles | 10. New York | 15. Toledo |

⁴ *Big Business: Its Growth and Its Place*, Chart 3, p. 42 (Twentieth Century Fund.) Exhibit No. 896 submitted to the T. N. E. C., July 11, 1939, (based on Census of Manufactures).

⁵ Sales statistics of the subsidiaries of United States Steel Corporation show that in 1937, 941 customers had billings over \$100,000 each and accounted for 73% of gross sales; in 1938, 963 customers had billings over \$100,000 each and accounted for 68% of gross sales.

⁶ Based on estimates made in 1937 for the subsidiaries of the United States Steel Corporation of a "normal" industry-wide market for the following products: heavy rails; heavy structural shapes; plates, sheared and universal; fabricated structural work; merchant bars, including reinforced concrete bars and light structural shapes; black sheets; galvanized sheets; hot rolled strip; rods, wire and wire products; tin mill products; pipe and tubing.

CHARACTERISTICS OF DEMAND

The demand for steel is subject to tremendous cyclical fluctuations. This is due primarily to the great cyclical fluctuations in the demand for producers' and consumers' durable goods in the manufacture of which steel is consumed.

DERIVED NATURE OF DEMAND

The demand for new durable goods is highly sensitive to changes in the demand for services which the durable goods perform. This may be demonstrated by a simple theoretical illustration. A railroad needs five hundred cars filled to capacity to carry 10,000,000 passengers a year. Each year fifty cars normally wear out and are replaced. More people decide to travel by railroad and passenger traffic increases 10 percent, so that 11,000,000 passengers a year must be accommodated. This requires fifty more cars which must be acquired immediately to meet the increased demand for passenger service. Therefore, in the year that this increase occurs the railroad has to buy one hundred cars instead of the fifty usually purchased for the normal replacement program. Thus a 10 percent increase in the demand for passenger service results in a 100 percent increase in the demand for railroad passenger cars. This is sometimes called by economists the "acceleration principle." It works in reverse too. If passenger traffic decreased 10 percent there would not be any demand at all for new passenger railroad cars; since only four hundred and fifty cars would be required to carry the 9,000,000 passengers left, no additional cars would be needed to replace the fifty worn out. In other words, a 10 percent decrease in demand for passenger service would cause a 100 percent decrease in the demand for new durable goods to perform such service.

DURABILITY AND DEMAND

The longer the life of durable goods the more sensitive is the demand for the new durable goods to changes in the demand for services. For example, in the simple theoretical illustration given above the average life of the railroad car was presumed to be ten years. Fifty cars normally had to be replaced annually. However, if the average life had been five years, 100 cars per annum would have to be replaced. In that event a 10 percent increase in the demand for passenger service would have resulted in only a 50 percent increase in the demand for new railroad cars, and a 10 percent decrease in the demand would have resulted in a 50 percent decrease in the demand for new equipment. On the other hand, if the average life of a car had been twenty years, only twenty-five cars would have to be replaced annually. Therefore a 10 percent increase in the demand for service would have caused a 200 percent increase in the demand for new railroad cars. In the event of a 10 percent decrease in the demand for service, the replacement demand for new equipment would not only disappear entirely, but twenty-five additional cars theoretically would be removed from service and be available to meet the normal replacement demand in the following year.

Thus, while the demand for new durable goods is highly sensitive to change in the demand for services which the durable goods perform, the degree of such sensitivity and the magnitude of the resultant fluctuation in demand depends on the life span of the durable goods; fluctuations in the demand for new durable goods will be progressively greater as durability increases. In actual practice many qualifications to this principle exist,⁷ nevertheless it is fundamental in the demand for durable goods.

POSTPONABILITY OF PURCHASE OF DURABLE GOODS

The purchase of durable goods usually can be easily postponed, and is postponed when income is scant or prospects for the profitable use of additional durable goods are discouraging. As a result of postponability of purchase, producers' durable goods industries feel an immediate effect on demand resulting from the contraction of producers' income as expenditures for capital goods are deferred and the income of the purchaser is directed primarily to meeting necessary out-of-

⁷ (a) The actual age distribution of the stock of durable goods in use might change in different years. (b) The effect of obsolescence is to increase replacement rates and therefore limit the magnitude of fluctuations, if it is a constant factor from year to year. If an erratic factor, it would increase the fluctuations if it occurred in normal or above normal years, or if it occurred in sub-normal years it would limit the fluctuation. (c) For producers' durable goods, obsolescence can be brought about by shifts in demand, the development of new products, the introduction of new techniques of production, discovery of new resources or new methods of using resources, migration of industry from one area to another, and similar changes. In the field of consumers' durable goods, style changes and shifts in consumers' demands are among the causes which may result in shortening the otherwise useful life of durable goods.

pocket expenses. In addition, even though the immediate business outlook is favorable, expenditures for capital equipment may be postponed if the long term business outlook is unfavorable; the business man must anticipate a reasonable return over the life of the investment before tying up his capital in durable equipment. After a prolonged depression, with purchases of durable goods almost completely eliminated, increased profits and returning confidence as to the future may stimulate a great upward surge in the demand for replacements previously postponed and also for new equipment for expansion.

In like manner, consumers' durable goods industries feel the impact of declining consumer income, as funds available are used to buy the necessities of life and existing consumers' durable goods, such as automobiles, are made to last longer than anticipated, or are discarded without replacement under stringent conditions. Increased consumer income, actual and anticipated, will create a strong revival in demand for consumers' durable goods as replacements are made and new equipment purchased.

As previously indicated, the "acceleration principle" becomes more potent as durability of a product increases. As a result the magnitude of expansion and contraction in demand for products of the durable goods industries will be greater than for non-durable goods industries. These fluctuations of demand for new durable goods will be further magnified by the postponability of purchase of these goods; a producer will buy coal, oil or electrical energy long after he has decided he must postpone purchase of capital equipment, and a consumer must buy food, clothing and other necessities even though he cannot afford a new car or a refrigerator.

TOTAL DEMAND FOR STEEL IS INELASTIC

The magnitude of these cyclical fluctuations in demand cannot be materially affected by adjustments in the price of steel because the total demand for steel is inelastic. This is due, first, to the derived nature of the demand for steel, and, second, to the limited number of substitutes for basic steel products, and conversely the limited number of products for which steel may be substituted.

As previously indicated, the demand for steel is derived from the demand for the services which products made of steel perform. If a change in the price of steel is to influence the demand for the finished product in which the steel is used, two conditions must exist: the cost of steel must represent a substantial percentage of the selling price of the finished article, and the demand for the finished article itself must be such that it responds to changes in its price. This is not generally the case; steel as a raw material usually represents a small percentage of the total cost of the finished product, and the major industries purchasing steel have a rather inelastic demand for their products.⁸

The automotive industry, which during recent years has been the largest single customer of the steel industry, is a typical example of the derived nature of the demand for steel and the resultant inelasticity of such demand. The cost of steel in a low-priced automobile retailing between \$700.00 and \$800.00 is about \$85.00, or roughly 10 percent of the retail price. Roos and von Szeliski in a recent study contained in "The Dynamics of Automobile Demand"⁹ estimated 1.5 to be a representative average of elasticity of demand for new automobiles; i. e., for every 1 percent decrease in the price, the automobiles sold would increase 1.5 percent. Since steel costs represent 10 percent of retail price, a 5 percent decrease in steel prices would permit a 0.5 percent reduction in the price of automobiles, and according to such elasticity of demand would increase automobile sales to the extent of 0.75 percent. The resultant increase in the demand for steel by the automobile industry would be negligible.

EFFECT OF THE SUBSTITUTION FACTOR

Substitution of steel for other materials, or a reverse substitution, is not an important factor in the cyclical fluctuations in the demand for steel. If, through lower prices, steel could invade a major market served by other products, or if high relative steel prices meant invasion of major steel markets by substitute products, there would be imparted to the total demand for steel a degree of elasticity not now present. Steel possesses more physical strength per dollar of investment than any other existing product; wood and concrete have a restricted

⁸ The approximate proportion of steel cost in price of finished product for various items is as follows: mile of railroad, 36.7%; apartment building, 10%; automobile, 10%; can of food, 8%; frame house, 6.2%; electric refrigerator, 3.4%; dairy barn, 3.2%; mile of reinforced highway, 0.7%.

⁹ Publication of the General Motors Corporation based upon papers presented at a joint meeting of the American Statistical Association and the Econometric Society in Detroit, Michigan, on December 27, 1933.

field in which they may be substituted for heavy steel. Glass, plastics, rubber, aluminum and certain alloys may serve as substitutes in specialized fields; but even in these cases price may be only one of many competitive factors involved. Therefore, price reduction would result in very little additional steel being sold as substitutes for other products, and a price advance, unless abnormal, probably would not result in additional competition from substitute products.

POTENTIAL ELASTICITY OF DEMAND FROM A PARTICULAR PRODUCER

Although the over-all demand for steel is inelastic and the total quantity bought would not be substantially different if the price within reasonable limits were lower or higher, the demand for steel from a particular producer possesses great potential elasticity. This readiness of a buyer to shift from one producer to another because of a lower price is due to the informed character of the buying of steel. Technical knowledge of the product to be purchased is available through laboratories of individual purchasers, trade associations and independent research agencies; exactly the same steel may, for the most part, be obtained from any one of a number of producers. Furthermore, the large size of individual purchases makes it worth-while for buyers to seek the lowest possible price. This propensity to shop is enhanced by knowledge of latest price quotations, by familiarity with psychological and other factors resulting in a "buyers" or a "sellers" market for all or particular products, and by a general understanding of approximate costs of steel production; indeed, a few purchasers¹⁰ of steel operate completely integrated steel works to supply a portion of their requirements, and others¹¹ have semi-integrated and non-integrated capacity.

Thus, potentially, the demand for steel from an individual producer is elastic and buyers are often in a position to exert bargaining pressure to obtain the lowest possible prices, especially when the steel industry is not operating near capacity.

THE SUPPLY OF STEEL

GEOGRAPHIC CONCENTRATION

The most economical source of steel is that location at which the raw materials can be assembled, the steel produced and delivery to the market effected at the lowest possible total cost. In determining plant location¹² assembly costs are most important; more than four tons of raw materials must be assembled for every ton of steel produced. Although production costs are subject to variations due primarily to geographical wage rate differentials, these variations are supplementary to and, in a measure, compensatory for otherwise uneconomical assembly or delivery costs.

The approximate amounts of principal raw materials required per ton of pig iron are: 4075 pounds of iron ore (assuming ore of a reasonably high metallic content), 2700 pounds of coking coal and 900 pounds of limestone. Another 1500 pounds of coal may be consumed for power and heating before a ton of finished steel product has left the mills. The greater proportion of the raw materials is used in the blast furnace, but integrated steel works have developed from blast furnace plants because (a) as steel approaches the finished stage the cost of shipment becomes a smaller percentage of the cost of the product to the buyer; (b) integration assures more constant and reasonably full utilization of blast furnaces and open hearths; (c) economies of converting molten iron into steel and other heat conservation factors are important in the economical production of steel.

Limitations imposed by the necessity for the most favorable combination of assembly, production and delivery costs have confined steel production to a few geographical areas.

The most favorable combination of the three variables is probably to be found at Lake Erie and Lake Michigan ports and in the Pittsburgh district (including the Mahoning and Ohio Valleys). These locations¹³ were primarily determined by the assembly costs of Lake Superior ores which are the backbone of the steel industry in the United States and supply about 82 percent of the ore consumed in the country, and of the finest metallurgical coking coals which are found in Western Pennsylvania, West Virginia and Kentucky. The assembly cost of limestone,

¹⁰ Ford Motor Company and International Harvester Company.

¹¹ American Car and Foundry Co.; American Locomotive Co.; Atchison, Topeka and Santa Fe Railroad Co.; Continental Can Co.; Simonds Saw and Steel Co.; Timken Roller Bearing Co., Inc.

¹² Availability of a large water supply is important in steel mill location.

¹³ Although Pittsburgh historically was established as a steel producing center before Lake Superior ores and coking coal came into general use, its growth and the maintenance of its dominant position has been based on its economical accessibility to these resources.

which is well distributed and the least important of the major raw materials, is usually an incidental factor.

Comparative assembly costs at principal production centers in this area have been estimated as follows:

TABLE 2.—*Estimated Assembly Costs in the Production of Pig Iron, Summer of 1937*¹

[In dollars per gross ton of pig iron]

Producing Center	Iron Ore	Coal	Flux	Total	Annual Blast-Furnace Capacity	
					Thousands of Gross Tons	Percentage of U. S. Total
Weirton-Steubenville.....	\$5.508	\$0.468	\$0.337	\$6.313	2,093	4.2
Pittsburgh.....	5.804	0.284	0.337	6.425	11,521	23.0
Cleveland.....	3.497	2.714	0.241	6.452	2,685	5.4
Buffalo.....	3.497	2.909	0.241	6.647	3,267	6.5
Detroit.....	3.497	3.249	0.086	6.832	1,423	2.8
Youngstown.....	5.193	1.979	0.170	7.342	6,592	13.2
Chicago.....	3.487	3.867	0.241	7.595	10,266	20.5
Total.....						75.6

¹ Worthing, Marion, "Comparative Assembly Costs in the Manufacture of Pig Iron", *Pittsburgh Business Review*, v. VIII., No. 1, January 31, 1938, pp. 21-25, Table 1.

Assembly costs at these locations vary; the importance of each component of the costs is emphasized by the difference of \$1.17 in favor of Pittsburgh over Chicago due entirely to Pittsburgh's fortunate position in the center of the finest metallurgical coking coal fields in the country.

Although primarily based upon assembly costs, the growth of these great steel production centers to their present size would not have been possible if outlets for at least a considerable part of their products did not exist fairly close at hand; all the production centers coincide with, or are adjacent to, major centers of steel demand. However, the location of these production centers depends only in part on relative assembly costs and the magnitude of local demand for a particular product; it depends, among other things, on the conformation of the market for each product and for the group of products that may be economically produced together.¹⁴

For example, hot rolled sheets, cold rolled sheets and tin plate, which are produced at the Gary sheet and tin mills of a subsidiary of United States Steel Corporation with all the attendant economies of large scale production, are products of virtually the same integrated process. Major outlets for hot rolled sheets are Chicago, Detroit, and Indiana with important sources of demand in Iowa, Minnesota, and Ohio; Detroit is the principal market for cold rolled sheets, and Chicago is an important market for tin plate. A similar situation exists at the Irvin Works of this same subsidiary in the Pittsburgh district which rolls the same three products. Ohio and adjacent West Virginia counties, Pittsburgh and Philadelphia are major markets for its hot rolled sheets. Cold rolled sheets are principally shipped to Cleveland, other Ohio centers and Philadelphia. The Irvin Works may also supplement Gary in the Detroit market with hot and cold rolled sheets in periods of peak demand, while Metropolitan New York is the major market for its large output of tin plate.

This market structure of groups of products that may economically be produced together accounts in part for production patterns with such apparent inconsistencies as limited capacity at Detroit and excess capacity, as compared to local demand, at Pittsburgh. The effects of historical development and the immobility of steel making equipment will be discussed later.

Birmingham, Alabama, and vicinity is another location with a favorable combination of assembly and production costs. Assembly costs at Birmingham are undoubtedly the lowest in the country—iron ore, coal and flux being in close proximity. In this case low assembly costs compensate in part for the comparatively poor quality of the raw materials; iron content of the ores is low and phosphorous content high, making conditioning and sintering desirable; the coal

¹⁴ Committee on Iron and Steel Price Research, National Bureau of Economic Research Conference on Price Research, *Proposals for Research on Prices and Pricing Policies in the Iron and Steel Industry* (1939).

requires washing before coking. With wage rates lower than other districts, production costs are also economical, although basic wage rates have been rising in the South. These advantages of assembly and production costs are offset by remoteness from major markets; a substantial part of the tin plate produced at the large plant recently erected by Tennessee Coal, Iron & Railroad Company, another subsidiary of United States Steel Corporation, at Fairfield, Alabama, is shipped to the West Coast and Hawaii.

Sparrows Point, Maryland, is strategically located. Based on the use of high grade imported ores, iron ore costs have been estimated¹⁵ to be less at Sparrows Point than at Lake Erie and Pittsburgh area plants, which advantage is offset, in part at least, by higher assembly costs for coal and limestone. Its accessibility to the large markets of the eastern seaboard, and its ability to compete on the West Coast via all-water transportation due to tidewater facilities, make economical distribution costs a major factor in the favorable location of Sparrows Point.

Combined assembly, production and delivery costs make possible integrated steel production on a commercial basis in only one other geographical area at the present time; ¹⁶ Colorado and Utah both possess iron ore, fair coking coal and limestone in sufficient quantities and within reasonable assembly distance of each other. Due to prohibitive distribution costs, however, this district must depend, in the main, on local demand for special products. At Pueblo, Colorado, the Colorado Fuel and Iron Corporation, cognizant of this situation, produces principally rails and track accessories for Western roads, and wire products for farm and ranch consumption. At Ironton, Utah, the Columbia Steel Company, a subsidiary of United States Steel Corporation, operates a blast furnace whose pig iron output is taken in part by its West Coast steel mills near Los Angeles and San Francisco and in part by local buyers. California steel mills also use a considerable amount of scrap obtained locally.

Although it is an important steel consuming area, the West Coast cannot support more than limited steel making capacity due to high assembly costs, particularly in the face of competition from Birmingham and Sparrows Point, both of which can serve this area on a more economical basis.

The principal steel producing centers of the nation, therefore, are confined to particular geographical areas where the raw materials for steel making can be economically assembled. Differences in the development and activity of these producing areas have been determined to a considerable extent by the relative costs of transporting steel to consuming areas. Many small non-integrated mills, however, are located outside the major producing areas where they may use local scrap, merchant pig iron or semi-finished steel to produce steel for consumption in the local area or may specialize in particular products to distribute in more widespread markets.

TECHNOLOGICAL ASPECTS

Steel making equipment installed at the producing centers is both costly and immobile; the economies of size inherent in steel manufacture have been important factors in determining the design of modern mills. The result is that the small plants of fifty years ago have been succeeded by complex and gigantic operating units.

Twenty years ago the coke used in blast furnaces was principally made in banks of simple beehive ovens, usually located at the mine. Today, it is made at or near the steel plant in long batteries of by-product coke ovens with alternating coking and heating chambers topped by coal larries, off-takes and collecting mains. In close proximity stand the tall cooling towers and scrubbers, the ammonia house and benzol plant used to obtain numerous by-products from the tars and gases emanating from the coking ovens, which are today recovered and put to use.

In 1880 the capacity of the most efficient blast furnace, a comparatively simple unit, was one hundred tons per day; at present the newest and most efficient furnaces are rated at 1100 to 1200 tons per day. This increased output has been accomplished not only by increase in size and better blast furnace practice, but by mechanical improvements and the development of auxiliary equipment. A blast furnace plant today is enormous and complicated. The furnace is a tall circular structure 90 to 100 feet high, built of firebrick and reinforced externally

¹⁵ Maryland State Planning Commission, *The Iron and Steel Industry—Blast Furnaces, Steel Works and Rolling Mills*, November 1933, p. 14.

¹⁶ With the exception of certain areas with small local ore deposits, capable of supporting limited operations, i. e., ore deposits of New Jersey, Eastern Pennsylvania, and the Adirondacks, economically accessible to Pennsylvania coal fields.

by a close-fitting steel shell. It is provided with apparatus for hoisting iron ore, coke and limestone to the top where they are charged into the furnace. Large pipes carry the gas generated in the furnace to the stoves where it is used for heating purposes. Beside each furnace stand four cylindrical stoves nearly as high as the furnace itself. These stoves heat air to high temperatures before it is blown into the furnace at the rate of five tons of air for every ton of iron produced. The impurities in the raw material are either burned out or accumulated in the slag which gathers on top of the molten metal. This slag is removed through the higher of two tapping holes. Through another tapping hole the molten iron is drawn at periodic intervals either into ladles to be carried to huge containers known as mixers subsequently to be taken to the open hearth and Bessemer converters, or into runners leading to the pig iron casting beds. A boiler house, power plant, pumping station, turbo-blower, stockyard, ore bridge, car dumper and raw material bins, all constitute important parts of blast furnace equipment.

The steel making equipment is equally complex and has increased in size as it has become more efficient. In 1899 the average open hearth furnace had a capacity of 22 tons per heat; in 1938 the average furnace capacity was 95 tons per heat and the largest 400 tons per heat. Even more spectacular has been the radical improvement in design and the increase in size of continuous rolling mills for flat rolled products in recent years. This acceleration of growth has been so dramatic that in 1936 a continuous rolling mill with a capacity of as much as 600,000 tons of finished flat rolled steel per year was unprecedented; yet in March 1938 a continuous strip mill was opened with an annual capacity of approximately one million tons.¹⁷

Equipment used in each stage of modern steel making is usually so combined as to perform a series of vertically integrated operations; conservation of heat and power requires continuous processes. Assurance of adequate sources of raw material and the elimination of purchasing expenses at each stage of operations are important factors in promoting further integration.

Vertical integration is a dual development in the industry. Non-integrated and semi-integrated producers desiring independence from producers of semi-finished steel and the owners of raw material reserves, and influenced by the possibility of additional savings, integrate toward the sources of their raw materials. Partly as a result of such movement and partly due to the decline in demand for steel used in producers' durable goods industries, producers of semi-finished and heavy steel have obtained outlets for their productive capacity by integration towards more highly finished products.

CAPITAL INVESTMENT REQUIREMENTS

This combination of huge units vertically integrated requires large capital investment. A modern blast furnace of about 1,000 tons capacity with the auxiliary equipment above mentioned costs four to five million dollars. The average investment required for a modern steel works of efficient size is approximately \$100,000,000. Such a mill would be capable of producing about 1,000,000 tons of ingots per annum and would have diversified finishing equipment of sufficient capacity to convert about half the output into billets and other semi-finished steel and the other half into sheets and strip. Such an investment would not include operations prior to the assembly of raw materials at the plant site, i. e., the plant would be integrated only from coke plant to continuous rolling mills. Operating units may be and sometimes are much larger; a single continuous hot and cold rolling finishing plant alone may require an investment of \$60,000,000.

Such large and complex equipment cannot be moved in response to geographical shifts in demand, and only extraordinarily great differential advantages of a new location justify scrapping existing facilities embodying large unamortized investment and long remaining service life. New areas of demand usually develop only for particular products or groups of products and it may be more economical for the established producer to install sufficient capacity at the existing location to compete in the new markets than to build integrated steel works at the source of the new demand. This decision may depend first, on the combination of products that can be economically produced together, and second, on whether the steel demanded can be produced by integrating new facilities with unused capacity at the existing location. Modernization and expansion at the established location may be rational; and the development of an individual company at a particular location may thus be perpetuated.

¹⁷ Republic Steel Company continuous strip mill, Cuyahoga Valley, Ohio.

FACTORS IN EXPENDITURES FOR NEW PLANTS AND EQUIPMENT

The number of producers of any particular steel product bears a rather direct relationship to the minimum investment required to become such a producer. It is pertinent to inquire first, the source of the funds for such capital expenditures and second the inducements necessary for the investment of these funds.

Source of Funds.—Funds for investment in new plants and equipment may be obtained from any one or a combination of the following sources: (1) Outside capital; both existing companies and promoters of new companies may borrow through the medium of notes and bonds or sell stock to obtain funds from this source. (2) Accumulated earnings; the availability of this source of funds over the years enabled existing companies to promote and keep pace with the upward trend in national steel consumption, and in addition helped small non-integrated and semi-integrated steel companies grow into large integrated units. (3) Depreciation and other reserves; this has been the primary source of funds for replacement and modernization programs.

Incentives for Investment—Profit Motive.—The normal incentive for investment is prospective profits. This may cause the expansion of existing companies; the development of non-integrated and semi-integrated companies into integrated companies being a case in point; or it may induce new companies to enter the field usually as non-integrated or semi-integrated specialists. The formation of a new integrated steel company, except by merger, would not be likely today since: (1) A large capital investment is necessary. (2) The technological and organizational difficulties in forming such a company are great. (3) The difficulty of obtaining an immediate market for the output of such a new company would be tremendous; great losses in early years would therefore seem inevitable.

Incentives for Investment—Obsolescence.—Obsolescence has been an important motive for capital expenditures by the steel industry in recent years. This has been due to: (1) New production techniques; the introduction of continuous hot strip mills and continuous cold reduction processes has brought about a major technological revolution in the industry. (2) The development of new products; cold reduced sheets and cold reduced tin plate have practically displaced the hot rolled products in major markets. In order to remain in markets demanding the new and better products, companies have had to purchase new equipment and construct new plants. (3) Shifts in demand; e. g., the marked increase in the demand for sheets, strip, tin plate and other steel required by consumer goods industries, and the decline until very recently in the demand for rails, plates and structural shapes. This shift has caused expansion of existing companies both to meet the new demand and to obtain outlets for otherwise unutilized ingot capacities.

SIZE AND NUMBER OF PRODUCERS

The producers of the bulk of tonnage steel are large in size and relatively few in number, which is a natural development in an industry requiring great capital investment as the result of large scale equipment, vertical integration and, in certain cases, horizontal integration. Principal producers (including subsidiaries) and their respective percentages of total ingot capacity for the year 1938 are indicated in the following table:¹⁸

TABLE 3.—*Percentage Distribution of Capacity Among Producers of Steel Ingots and Steel for Castings—1938*

Name of Corporation	Percentage of Total Annual Capacity
United States Steel Corporation.....	35.3
Bethlehem Steel Corporation.....	13.7
Republic Steel Corporation.....	8.9
Jones & Laughlin Steel Corporation.....	5.0
National Steel Corporation.....	4.7
Youngstown Sheet & Tube Company.....	4.3
Inland Steel Company.....	3.9
American Rolling Mill Company.....	3.6
Wheeling Steel Corporation.....	2.4
Other smaller companies.....	18.2
Total.....	100.0

¹ This total does not include those companies that produce steel only for castings.

¹⁸ American Iron and Steel Institute, *Iron and Steel Works Directory of the United States and Canada*, 1938, pp. 401-402.

However, ingot capacities should not be the sole criteria of the size and number of producers, especially in the consideration of markets for particular products, since the number of companies and the percentage of the total that each has capacity to produce varies with individual steel products. The number is determined by: (1) The minimum investment required in equipment to produce the product, the prospective return thereon, and the relative simplicity of the operation. The investment formerly required for a steel mill and past profit margins must be considered in a study of any particular company, since most of the present producers entered the market under conditions different from those which today would face a newcomer. (2) The technological history of the product and the equipment used to produce it. (3) The nature of the demand for the product; its diversity and geographical distribution. (4) The historical development of the producers.

The percentage of the total represented by the capacity of any individual producer is principally a reflection of: (1) The historical development of that producer, particularly with reference to product specialization; (2) The technological history of the product and the equipment used to produce it; (3) The producer's location with respect to demand.

Under the influence of these factors there are distinct variations in the character and total number of producers of each steel product, and in the percentage of total capacity possessed by each producer for each product, and in the geographical distribution of their plants.

CHANNELS OF DISTRIBUTION

Approximately 80 percent of the steel produced by the steel industry is sold directly to consuming industries through the sales organizations of the producing companies so that in the majority of cases "sellers" and "producers" are interchangeable terms in the market for steel.

Jobbers and Warehouses.—The balance of the steel sold passes through the hands of jobbers, warehouses and other distributors which are essential in the sale of standardized products in small lots to widely scattered consumers, or where geographical conditions such as exist on the West Coast make this form of distribution particularly economical.

Although the jobber market is an important factor in the distribution of steel, the influence of this form of distribution on the pricing and marketing of the majority of steel products is negligible. Jobber outlets are, however, important elements in the marketing of galvanized sheets, concrete reinforcing bars, standard pipe, tubes, and merchant wire products.

Importance of Outlets.—Maintenance of outlets for semi-finished and finished steel is important for most members of the steel industry. The acquisitions of such outlets, by integrated producers, which occur from time to time, involve a change in the distribution pattern of the industry.

SUMMARY

The supply side of the steel market from a long term viewpoint is marked by these characteristics: (1) The areas of production are geographically concentrated in a few districts because of location of raw materials and transportation costs. (2) Large size equipment and vertical integration are typical of the industry; some companies are also horizontally integrated, while a number of semi-integrated or non-integrated companies are specialists in particular products. (3) Large capital investment is necessary; however, for certain products the investment necessary to become a producer is relatively much smaller than for others, and this seems to be an important controlling factor in determining the number of producers of a given product. (4) Generally speaking, producers are large in size and few in number, although in particular cases major producers of specialty products may be smaller non-integrated or semi-integrated units. (5) Investment in new plants and equipment arises both in response to prospective profits and as a result of obsolescence.

In contrast with many types of markets the steel market is one not easily entered by producers, or withdrawn from, once entry has been accomplished. The large investment required, technological and organizational difficulties, and the problem of obtaining an immediate market are obstacles to entry. The non-recoverable costs that must be sunk in a steel company are not conducive to withdrawal if there is an opportunity for any return in excess of out-of-pocket expenses.

In much the same manner, the supply side of the steel market differs from other markets in that productive capacity cannot be easily adjusted to meet changing

market conditions. Once capacity is installed, it is inelastic and cannot be removed except by scrapping, which ordinarily does not appear desirable due to the large investment involved; nor can capacity be easily expanded except by heavy capital expenditures requiring a considerable time interval.

CHARACTERISTICS OF COST IN THE INDUSTRY

"OVERHEAD" OR "FIXED" COSTS

There are certain costs in the steel industry which are approximately the same regardless of the amount of steel produced.¹⁹ These costs are sometimes known as "overhead" or "fixed" costs. In the case of the United States Steel Corporation and its subsidiaries such "fixed" costs are composed of the following elements in the approximate percentages indicated:

TABLE 4.—*United States Steel Corporation & Subsidiaries Components of "Fixed" Costs, under 1938 Conditions*

Item	Approximate Percentage
Interest.....	4.56
Pensions.....	4.23
Taxes (other than social security and Federal income).....	13.29
Depreciation and Depletion.....	16.20
Payroll.....	34.10
Social Security Taxes.....	1.37
Goods and Services Purchased from Others.....	26.25
Total.....	100.00

Other steel producers may have different percentages for the components of their "fixed" costs depending on the degree of integration and their capital structure. However, regardless of their composition, such costs are relatively large for major producers in the steel industry, and with low operating rates are a substantial percentage of total costs.²⁰

"ADDITIONAL" COSTS

The costs over and above "fixed" costs represent the "additional" cost incidental to the production of each additional ton of steel, assuming the steel mill is already in operation. Recent studies of the experience of the United States Steel Corporation and its subsidiaries over the past ten years indicate that the addition to the total costs arising from the production of each additional ton²¹ of steel is the same regardless of the operating rate at which the additional output is obtained as long as the other factors affecting costs remain constant. This phenomenon of constant "additional" costs covers an observable range of output

¹⁹ This presumes a company in operation. Complete shutdown naturally would decrease these costs sharply.

²⁰ See the following table:

TABLE 5.—*United States Steel Corporation & Subsidiaries Percentage of "Fixed" to Total Costs at Various Rates of Operation, under 1938 Conditions*

Operating Rate	Percentage of "Fixed" to Total Costs	Operating Rate	Percentage of "Fixed" to Total Costs
10.....	57.2	60.....	22.9
20.....	43.9	70.....	20.4
30.....	35.8	80.....	18.5
40.....	30.1	90.....	16.8
50.....	26.0	100.....	15.4

²¹ The tons mentioned in describing the cost pattern are weighted tons. This means that each ton of Rolled and Finished steel product or of other tonnage product which is of a type whose average cost is less than the average cost of all Rolled and Finished steel products, is made to count as less than a full ton, while tons of products of a class which is on the average more costly than the average cost of Rolled and Finished steel products, are made to count more than a full ton. In this way the number of tons of all tonnage products shipped has been converted into equivalent tons of average-cost Rolled and Finished steel products. The result is that total costs of various tonnages shipped are made comparable where they would not be if unweighted tonnages had been used.

which extends from around twenty percent of capacity to slightly beyond ninety percent of the physical limit of output. It is not certain that this relationship would hold true as the physical limit of capacity is reached since at that point the equipment may become overtaxed and for various reasons operate less efficiently and at greater cost. Less efficient reserve units may also be placed in service to meet the peak levels. In those circumstances the additional costs incidental to the production of an additional unit of output would cease to be constant and would probably rise sharply. The percentage composition of these costs in the case of the United States Steel Corporation and its subsidiaries is indicated in the following table.

TABLE 6.—*United States Steel Corporation & Subsidiaries Components of "Additional" Costs, under 1938 Conditions*

	Approximate Percentage
Taxes (other than social security and Federal income)-----	2. 57
Depreciation and Depletion-----	4. 25
Payroll-----	52. 22
Social Security Taxes-----	2. 08
Goods and Services Purchased from Others-----	38. 88
Total-----	100. 00

For companies less integrated than the United States Steel Corporation and its subsidiaries the percentage attributable to "Goods and Services Purchased from Others" would increase and the percentage of other components decrease.

AVERAGE COSTS

Since the average cost of producing a given ton of steel is the sum of the "additional" costs plus an amount equal to the "fixed" costs divided by the number of units produced, this "average" cost must necessarily be higher than the "additional" cost for nearly the whole range of operations almost to the limits of capacity.²²

The components of the average cost of producing a ton of steel are, to a certain degree, largely outside the control of steel producers; wage rates tend to be inflexible and lag in adjustment, prices paid for goods and services are often fixed by outside agencies as they are in the case of railroad rates, interest is determined by factors in the money market, taxes are established by law, and depreciation and depletion charges cannot long be disregarded.

THE DYNAMICS OF THE MARKET FOR STEEL

COSTS AND DEMAND

The inelasticity of the total demand for steel and the aforementioned characteristics of cost in the steel industry place definite limitations on the financial ability of the industry to increase production by decreasing prices. Assuming that each 1 percent decrease in price would increase consumption of steel 1 percent, a 10 percent decrease in the average level of steel prices prevailing during 1938 even though offset by a 10 percent increase in the quantity of steel sold, would have increased the deficit²³ of the United States Steel Corporation from \$8,758,572.00 to \$52,058,572.00. This estimate is most conservative, since there is every indication that the elasticity of the demand for steel is not as great as assumed above.

Despite this overall price-volume-cost relationship in the industry, the potential elasticity of demand for the product of an individual steel company and the internal problems arising within individual companies from this characteristic cost pattern further affect the market for steel.

Except in periods of high operations, and more particularly in times of slack demand, there is a tendency to cut prices below average costs so long as the price for the additional unit sold is above the "additional" cost necessary to produce such additional ton of steel. The large size of individual orders and the potential shiftability of buyers of steel in response to price considerations accentuate such a tendency, particularly when, due to the inelastic nature of the total demand for steel, the problem for the individual producer is to obtain a share

²² In the case of United States Steel Corporation and its subsidiaries, the average cost of all operations per ton of steel shipped, under 1938 conditions, would be \$55.73, plus an amount equal to \$182,100,000 (the total "fixed" costs) divided by the number of tons produced.

²³ Deficit after deduction of bond interest, but before Federal income and profit taxes and exclusive of non-operating income and expense.

of the going business. Thus it is that in periods of restricted demand, knowing that anything above his "additional" costs contributes something toward "overhead" or "fixed" costs which must be met in any event, the producer will cut prices below his average costs if he feels he can obtain additional business for his mills thereby. This inherent tendency to cut prices, however, is offset to some extent by the knowledge that competitors will meet price concessions as soon as they become known.

PSYCHOLOGICAL FACTORS

Buyers and sellers of steel react differently at various stages of the business cycle; this is natural in an industry marked by large cyclical fluctuations in the demand for its products. In depression the tendency toward price cutting grows as buyers bargain more sharply and sellers scramble for what business there is in an effort to reduce deficits mounting under the burden of "overhead" or "fixed" costs. In better times buyers are less averse to paying higher prices, and sellers no longer under the goad of operating losses are reluctant to make price concessions. Therefore, in part at least, cyclical fluctuations in steel prices are attributable to changes in the psychology of buyers and sellers.

CHARACTERISTIC PATTERNS OF ACTION BY SELLERS IN THE MARKET FOR STEEL

The factors mentioned above have resulted in phenomena that reappear each time the steel industry passes through a full cycle in demand.²⁴ In a rising cycle as demand increases, average costs in the industry decrease as additional units are produced, but these decreases are usually soon offset by higher raw material prices, and increased labor and other costs. In addition, as already indicated, the psychology of the buyers and sellers changes and the industry may feel that the time is propitious for an increase in prices, not only to cover increased costs, but also to compensate for past losses and to accumulate resources for possible future periods of depression. Quite naturally, however, producers of steel do not care to take the risk of losing their share of business by an increase in prices which may not be followed by their competitors.²⁵ The natural result is that the industry is inclined to wait for some large producer to announce higher prices. This natural phenomenon in the rising cycle is sometimes called "price leadership". So long as the term is used to describe a natural phenomenon resulting from factors inherent in the industry and involving no collusion or other violation of the anti-trust laws, there is little objection to the term.

In the falling cycle, average costs increase as demand and production decrease, accentuated in part by the continuance of high wages which have a tendency to become inflexible, or in any event to lag in their adjustment to the lower level of production. In the early stages of the decline in demand, the industry, aware of the inflexibility of the total demand for steel and faced by rising average costs per unit of output, naturally is averse to cutting prices when the prices they are getting on the going business barely cover their costs. From past experience the industry is aware that any weakening of prices leads buyers to hold off purchasing in the expectation that prices will go still lower. Then too, the steel producer may be optimistic about an improvement in general business conditions in the near future. However, sporadic price cutting soon breaks out spurred by the individual producer's hope of obtaining an additional share of the going business. Concessions soon become general knowledge in the trade; and while, for a period, some producers may not care to compete on the basis of these concessions, eventually all producers must meet competition at the going prices.

THE BASING POINT METHOD OF QUOTING DELIVERED PRICES

The basing point method of quoting delivered prices in the steel industry has developed over a long period of years in response to the fundamental economic factors of that industry. Two authorities on the economics of the steel industry succinctly point to the basic fallacy in the reasoning of most critics of this pricing method when they state that "Intelligent appreciation of the pricing problem in the steel industry has suffered from a failure of most commentators to distinguish between the basing point system as a medium or mere mechanism for the translation of policy into action and the economic roots of that primary policy itself."²⁶

²⁴ The pattern outlined has perhaps been oversimplified since (1) all products do not pass through each phase of the cycle simultaneously, making the pattern more confused than it appears in this outline; (2) the existence of jobbers and distributors complicates the situation with respect to certain products; (3) in addition, the human factor is unpredictable, making it difficult for businessmen always to rationalize their actions as they participate in a highly competitive market.

²⁵ Does not apply where all capacity of a particular product is booked substantially ahead.

²⁶ de Chazeau and Stratton, *Economics of the Iron and Steel Industry*, by Daugherty, de Chazeau and Stratton, p. 578 (McGraw-Hill Book Company, 1937).

ECONOMIC ROOTS OF THE BASING POINT METHOD

In quoting prices manufacturers of steel must take certain basic factors into consideration: (1) The cost of transportation from steel mill to destination may be substantial in relation to the value of steel shipped. Consumers of steel are interested in the cost of steel at the place where they use it. Therefore, most consumers want to know the lowest delivered price at which they may purchase the steel they require. (2) Consumers of steel are located in different parts of the country and although more steel may be sold in some sections than in others, even major markets for the same steel product may be geographically widespread. (3) Producers of steel must locate their plants at points where raw materials may be economically assembled. This confines major steel producing centers to a few geographical areas. Modern steel making equipment is large and complex; it requires great capital investment and is extremely immobile once installed. (4) To insure economical and reasonably stable operations, steel producers must sell large quantities of steel and since consumers of the group of steel products that may economically be produced together may be located in different areas, the producer must be able to quote prices at diversified locations. The extent to which he may economically serve different consuming areas will be determined by the most economical combination of assembly costs of raw materials, production costs and the cost of delivering finished steel to important markets. (5) Producers of steel have large "fixed" costs, which must be met regardless of the number of tons produced so long as operations are continued. Although these producers realize that the total quantity of steel consumed cannot be greatly influenced by reductions in steel prices, they do know that the quotation of a delivered price only slightly below other quoted delivered prices may influence the placement of substantial orders with a particular producer. Since competition for available business is keen, and particularly so when low rates of operation make the "fixed" costs burdensome, a knowledge of the level at which competition must be met in quoting prices at a definite location is valuable in preventing completely disorganized markets that might prove disastrous to the industry.

The multiple basing point method of quoting delivered steel prices is a simple pricing medium which has evolved over a long period of time to meet the peculiar characteristics of the steel industry. It is an open price method of quoting delivered prices at diversified locations. Such open prices are similar to list prices which may be and are reduced to meet competition. As a pricing medium it permits the consumer to bargain with a number of producers for both steel and service at the lowest possible price and at the point where he needs it. It serves producers by permitting them to compete in diversified markets to obtain the volume and even flow of orders necessary to economical operations. In essence, it provides an orderly medium by means of which consumers and producers of steel may trade to their mutual benefit.

RELATION OF COMPETITION TO PROFITS, CAPACITY AND COSTS OF DISTRIBUTION

Price competition is necessary in any industry operating in a capitalistic system. Is the steel industry competitive? Efforts at such determination too easily lead into the realms of economic sophistry. Criticism and defense of competition in the industry should not be based on abstract criteria which fail to take into account the fundamental phenomena involved; it should be based on tangible evidence.

Edward Chamberlin in his notable work, "The Theory of Monopolistic Competition", demonstrates that evidence of imperfect functioning of competition may be found in any one, or a combination of three, undesirable elements.²⁷ The first is excessive profits resulting from high monopoly prices. The second is excessive productive capacity induced by high prices which encourage the entrance of producers into the market, until the reduced volume of each lowers profits to the minimum level, although the original high prices remain. The third is excessive selling costs which contribute to higher prices if selling costs per unit are greater than the decrease in production costs resulting from the increased volume of production. Selling costs are simply one element of distribution costs, and Mr. Chamberlin, although he does not do so, could apply his thesis to all distribution costs with equal force. Assuming that excessive profits, excessive capacity and/or excessive costs of distribution are criteria of the lack of competition, what is the position of the steel industry with respect to these standards?

²⁷ Chamberlin, Edward, *The Theory of Monopolistic Competition*, Chapters V and VI, Harvard University Press, 1938.

PROFITS

Profits in the steel industry are not excessive. From 1919-1928 inclusive, the average return on investment was 5.1 percent; from 1929-1938 the average rate of return was 2.4 percent.²⁸

A study based on a composite of financial statements of leading companies in their respective industries illustrates the comparative earnings of other industries and the steel industry for the period from 1929 to 1937 inclusive.

TABLE 7.—*Ratio of Earnings to Net Assets—1929-37 Inclusive (Earnings Before Interest in Percent of Total Assets Less Current Liabilities) Steel Industry Compared With Other Industries*

Industry:	Earning Ratio	Industry—Continued.	Earning Ratio
Tobacco and Products.....	12.3	Motion Pictures.....	5.6
Automobiles and Trucks.....	11.7	Building and Real Estate....	5.2
Household Products.....	10.6	Telephone & Telegraph.....	5.0
Office Equipment.....	10.3	Paper and Products.....	4.9
Automobile Accessories.....	10.2	Oil Producing and Refining....	4.8
Chemicals and Fertilizers....	10.1	Metals (Non-Ferrous).....	3.8
Leather and Shoes.....	9.3	Rubber & Automobile Tires..	3.7
Retail Trade.....	9.0	Railroads (Class I).....	3.6
Electrical Equipment & Radio.....	7.6	Railroad Equipment.....	3.1
Food Products.....	7.6	Steel and Iron.....	2.0
Public Utilities.....	6.0	Textiles & Apparel.....	1.5
Machinery (Industrial & Ag- ricultural).....	5.7	Coal.....	1.1

Sources: Standard Trade and Securities, Standard Statistics Company, Vol. 31 #20 Section 3 for 1927-1935, Vol. 89 #15 Section 5 for 1936 and 1937.

On the basis of these figures the steel industry can hardly be accused of excessive profits. Are these low profits caused by excessive capacity?

CAPACITY

Capacity of the steel industry is not excessive. Unused or idle capacity should not be confused with "excess" capacity. Past experience indicates that even in periods of peak demand orders are not distributed among products in such a way as to make possible full utilization of all facilities. In practice, therefore, operations probably would never be maintained at 100 percent of finished steel capacity because of lack of coordination between demand and capacity for various products. Production might, therefore, be expected to run five or ten percent, or even more, below capacity at the peak of the cycle.

In times of real emergency, or under the tremendous pressure of excessive demands on the industry, it might be possible, by bringing into operation obsolete facilities, lengthening the work week, eliminating holidays, and by other means, to attain an operating rate in excess of 100 percent. This last happened in May 1929.

True, the steel industry had a large amount of unused capacity during recent depression years, but this is reasonable and to be expected in an industry with capacities that are rigid and immobile and whose rate of operations is so controlled by the tremendous cyclical fluctuations in the demand for steel. If the industry is to have facilities to supply the peak or near-peak demand, it must have idle capacity during the periods of lower demand. An industry which, in the partial recovery of 1937, produced steel ingots for three successive months in an amount roughly equivalent to the average monthly capacity for the industry in the high production year of 1929, cannot have "excessive" capacity if it is to take care of the demands of a normal recovery which would only have to be about 10 percent greater than the peak months of 1937 to utilize the present full capacity of the industry. The vital importance of existing capacity is emphasized by current conditions which make it imperative for the steel industry to produce steel in quantities never before equaled in its history. Quite conceivably, with any capacity less than it presently possesses, the steel industry would become a bottleneck and prevent full normal recovery.

²⁸ *Steel Facts*, August 1930, No. 35, p. 3. Since the years, components and sources are different this figure naturally does not agree with that for "Iron and Steel" in the table which follows.

DISTRIBUTION COSTS

The steel industry does not have excessive distribution costs. In a study of distribution costs of 312 manufacturers in 1931²⁹ "Iron and Steel and Their Products," a very broad classification, ranked among those having the lowest distribution costs. The steel industry proper undoubtedly had even lower distribution costs than those companies included in the classification "Iron and Steel and Their Products," if the records of the United States Steel Corporation and its subsidiaries are in any way indicative of the average distribution costs for the steel industry.

Selling Expense.—The major elements in the distribution cost study referred to are "direct selling costs" and "advertising and promotion costs." These two items combined represented 11 percent of net sales of those companies reported as component manufacturers of "Iron and Steel and Their Products"; in 1931, the same year used in the aforementioned study, direct selling costs and advertising and promotion costs were 3.1 percent of net sales for the United States Steel Corporation and its subsidiaries.³⁰

Freight Absorption.—An element more or less peculiar to the steel industry is the amount paid by a steel producer for the transportation of steel from the steel mill to the customer over and above the amount of the freight charge included in his computation of the delivered price under the basing point method of quoting delivered prices. This results from competition in the steel industry, as a producer in order to share in the business must meet the delivered price of a competitor whose steel mill is nearer freight-wise to the customer. This is sometimes called "freight absorption" by critics of the basing point practice.

A broad sampling³¹ of shipments for the month of February 1939 by the American Steel & Wire Company, Carnegie-Illinois Steel Corporation and Tennessee Coal, Iron and Railroad Company, three subsidiaries of the United States Steel Corporation, showed average "freight absorption" of \$1.99 per ton equivalent to 3.75 percent of the net sales return to the companies on these shipments, and 3.6 percent of their delivered value to the customer.³² In view of the fact that "freight absorption" plus selling expenses and advertising and promotion costs for the steel industry are less than just the selling expenses and

²⁹ See the following table:

TABLE 8.—*Distribution Costs of 312 Manufacturers, 1931*

[In Per Cent of Net Sales]

Product	Percent	Product	Percent
Consumer Products:		Consumer Products—Continued.	
Drugs and Toilet articles.....	48.8	Agricultural Supplies.....	18.4
Paints & Varnishes.....	38.6	Tobacco Products.....	18.3
Furniture.....	33.1	Sporting Goods.....	18.2
Heating Equipment.....	32.9	Radio Equipment.....	16.5
Office Equipment & Supplies.....	32.2	Industrial Products:	
Confections and Bottled Beverages.....	31.6	Machinery and Tools.....	25.8
Petroleum Products.....	31.0	Building Materials.....	23.7
Jewelry and Silverware.....	28.7	Stone, Clay and Glass.....	21.7
Grocery Products.....	27.1	Paper Products.....	20.4
Household Appliances.....	26.5	Chemicals and Allied Products.....	19.9
Automotive.....	24.7	Electrical Equipment.....	19.7
Clothing.....	22.6	Iron and Steel & Their Products.....	19.0
Home Furnishings.....	21.7	Nonferrous Metals.....	18.5
Shoes.....	21.2	Transportation Equipment.....	15.5
Hardware.....	18.9	Textiles.....	9.2

An Analysis of the Distribution Costs of 312 Manufacturers, Association of National Advertisers and the National Association of Cost Accountants, New York, 1933, pp. 64, 106.

³⁰ Percentage of selling expenses and advertising and promotion costs to net sales for the United States Steel Corporation for 1926 is 1.34%; for 1927, 1.65%; for 1928, 1.61%; for 1929, 1.53%; for 1930, 2.29%; for 1931, 3.07%; for 1932, 4.32%; for 1933, 3.22%; for 1934, 3.32%; for 1935, 2.79%; for 1936, 2.27%; and for 1937, 1.98%.

³¹ Temporary National Economic Committee, Form B. Distribution and Pricing of Selected Steel Products for month of February 1939.

³² "Adjusted" freight absorption, i. e., the above mentioned unadjusted freight absorption less basing point price differentials, averaged \$1.33 per ton, equivalent to 2.4% of the delivered value for the above named subsidiary companies. Data based on Form B returns for the 55 steel companies reporting show that "unadjusted" freight absorption for those companies averaged \$1.77 per ton, or 3.2% of delivered value, and "adjusted" freight absorption averaged \$1.16 per ton, or 2.1% of delivered value. (See Temporary National Economic Committee, Pt. 26, Exhibit No. 1409, Charts C27, C28, and C31.)

advertising and promotion costs of nearly every other industry,³³ it cannot be charged that distribution costs in the steel industry are excessive.

Since excessive profits, capacity and distribution costs are not present in the steel industry, it may reasonably be concluded that, although the economic factors in the steel industry are such that it cannot survive for long under conditions of cut-throat competition, it is sufficiently competitive to be free of the alleged evils of lack of competition.

CONCLUSION

THE FUNCTION OF THE STEEL INDUSTRY IN THE NATIONAL ECONOMY

There remains one question of vital interest. Does the steel industry perform its proper function in the national economy?

As a Source of Raw Material.—The steel industry primarily supplies a basic raw material for the production of other goods and services. Properly to perform its function it must continuously provide material meeting the exacting and changing demands of a great variety of industries each of which has diversified requirements. The steel industry has consistently done so, as is clearly evidenced by the industrial growth of the United States. The steel industry has developed new products and improved the old ones, both on its own initiative and in close cooperation with the steel consuming industries. In fact, if it were not for the steel industry, many of the major improvements in products of other industries would not have been possible. For example, the streamlined all-steel automobile would have been impossible to construct fifteen years ago since it depends upon the deep drawing qualities and strength of the modern cold rolled sheets. Due primarily to the recently introduced cold reduced tin plate certain fruits and vegetables are now available throughout the year as canned products. Beer could not be sold in cans so readily if the steel industry had not developed a special type of tin plate which can withstand internal pressure. New streamlined trains use high tensile, low alloy steels and stainless steels which have been developed by the steel industry. Special heat treatments have been discovered which, when applied to rails, insure better and longer service.

³³ See the following table:

TABLE 9.—*Selling Expenses and Advertising and Promotion Costs of 512 Manufacturers in 1931*

[In Per Cent of Net Sales]

Product	Direct Selling Costs	Advertis- ing & Pro- motion	Total
Consumer Products:			
Drugs and Toilet Articles.....	11.3	18.4	29.7
Paints and Varnishes.....	17.1	7.5	24.6
Furniture.....	14.8	6.1	20.9
Heating Equipment.....	15.8	7.9	23.7
Office Equipment and Supplies.....	21.3	3.2	24.5
Confections and Bottled Beverages.....	11.5	6.7	18.2
Petroleum Products.....	10.9	6.0	16.9
Jewelry and Silverware.....	11.5	6.3	17.8
Grocery Products.....	11.1	6.2	17.3
Household Appliances.....	12.8	6.8	19.6
Automotive.....	12.9	4.0	16.9
Clothing.....	11.2	3.7	14.9
Home Furnishings.....	12.4	2.9	15.3
Shoes.....	8.7	3.7	12.4
Hardware.....	9.1	2.2	11.3
Agricultural Supplies.....	8.2	1.6	9.8
Tobacco Products.....	3.2	8.2	11.4
Sporting Goods.....	8.4	3.6	12.0
Radio Equipment.....	5.4	5.3	10.7
Industrial Products:			
Machinery and Tools.....	14.6	4.4	19.0
Building Materials.....	11.8	3.0	14.8
Stone, Clay and Glass.....	10.0	3.1	13.1
Paper Products.....	9.4	2.5	11.9
Chemicals and Allied Products.....	10.6	1.2	11.8
Electrical Equipment.....	12.0	3.0	15.0
Iron and Steel and Their Products.....	9.0	2.0	11.0
Nonferrous Metals.....	10.2	1.1	11.3
Transportation Equipment.....	8.8	1.7	10.5
Textiles.....	5.1	1.3	6.4

To produce these better products and still keep costs down, the steel industry over the years has constantly improved its equipment and has developed entirely new equipment such as the continuous sheet and strip mills which so recently revolutionized the industry. It cannot be said that the steel industry has been remiss in providing better materials to be used by other industries to make products and provide services. This functioning of the steel industry to supply new and better steels is particularly germane to the pricing problem since quality improvements are usually not reflected in price series. In addition, many types of steel which are in actuality new products may be known by the names originally applied to the products they replaced and as a result the new products and the old may be included in single price series although they may have little or no homogeneity.

As a Factor in Employment.—Steel prices would be even more important to the national economy if they influenced the amount of goods that could be sold by companies for which the steel industry is a source of supply, and so affected the rate of employment in those industries. This study has indicated that the price of steel is of negligible importance as a factor in the demand for goods made of steel because of the small percentage of the cost of the steel as related to the cost of the finished product. Steel prices have little effect on national production or employment. This is not to imply that the steel industry may charge any price its whim or fancy may dictate. Competition among producers, and bargain-driving purchasers with large orders to place, keeps prices at levels which sometimes do not even cover costs.

It has been charged by some that steel prices have remained firm in the face of falling demand, and as a direct result production and pay rolls have declined drastically. If the implications of this charge could be sustained it would be a serious indictment. But they cannot be sustained. This study has shown that the demand for steel is derived from the demand for goods made of steel. This demand depends in turn on such factors as the level of national income and confidence that in the future there will be opportunity for the profitable use of additional durable goods. The total demand for steel is inelastic; that is, the total quantity of steel bought from the industry would not be substantially different at any particular time if the price were higher or lower. The steel industry must have orders on hand before it can produce; steel is made to exacting specifications for particular uses; the very bulkiness of such steel items as might be made in anticipation of future demand prevents their heavy production for inventory. If there is lack of confidence in the future and declining national income, production and consequently hours of employment, will decrease despite all efforts of steel producers. Only confidence in the future and actual or anticipated increase in national income can create production and resultant employment in the steel industry.

Despite the negligible influence of price on demand for steel, and waiving the fact that the composite published price of steel is more flexible than critics often suppose, and the further fact that net yields received by the industry are more flexible than indicated by published figures,³⁴ what adjustments would have to be made if steel prices were cut appreciably? Since substantial "fixed" costs must be met regardless of the amount of steel produced, prices cannot be out of line with total costs over any considerable period.

What costs could be adjusted if prices were substantially reduced when the industry was operating at 50 percent of capacity? Based on cost data of the United States Steel Corporation and its subsidiaries previously discussed, pay-rolls would be approximately 50 percent of total costs at that rate of operation; goods and services purchased from others, 34 percent; taxes and depreciation and

³⁴ See the following table:

TABLE 10.—*Indexes of Prices*
[1926=100]

Year	Composite Iron Age Prices	U. S. S. C. Mill Net Yields	Year	Composite Iron Age Prices	U. S. S. C. Mill Net Yields
1926.....	100.0	100.0	1933.....	81.2	76.7
1927.....	95.1	96.5	1934.....	87.8	89.1
1928.....	93.5	93.3	1935.....	88.9	90.9
1929.....	95.4	94.5	1936.....	89.7	88.6
1930.....	88.5	87.9	1937.....	106.4	99.6
1931.....	84.5	81.3	1938.....	103.4	99.8
1932.....	82.1	78.8			

depletion about 7 percent each; and the remaining 2 percent of total costs would represent interest to bondholders and pensions to retired workers. There is no getting away from taxes; they must be paid. Depreciation and depletion charges could be overlooked for short periods, but not for long. If interest were not paid, the Company would be forced into bankruptcy. The remaining 84 percent of total costs represents payrolls and goods and services purchased from others. Goods and services purchased from others perhaps could be obtained at lower prices by sharp bargaining where the prices are not fixed by law as they are in the case of railroad rates. Payrolls remain. They are 50 percent of total costs. There is very little doubt that any appreciable cut in steel prices over the long run would have to be met by reducing wage rates.

As a Factor in the Growth of the Nation.—This study has discussed the productive capacity of the steel industry and indicated the reasons why unused capacity may be present in certain periods, but excess capacity, in the sense that it is not necessary to the economic well-being of the industry and of the nation, is absent. It has been shown that assembly costs of raw materials, the geographical location of markets for products that may be economically produced together, the immobility of steel-making equipment, the huge investment required therein, and the historical development of individual companies are more important than the pricing method in accounting for the existence of more capacity in certain districts than local consumption might seem to dictate. It has been pointed out that steel-making capacity has developed in every area where raw material assembly costs, costs of production and nearness to consuming markets have been conducive to such development. On these bases it cannot be contended that the price structure of the steel industry has been instrumental in the preservation of uneconomic capacity nor in the prevention of the expansion of economic capacity.

In brief, the steel industry has efficiently performed its function in the national economy, has materially assisted in the development of this country, and has ever been prepared to meet the needs of the nation in each forward surge of prosperity as well as in times of national emergency.

THE BASING POINT METHOD OF QUOTING DELIVERED PRICES IN THE STEEL INDUSTRY¹

FOREWORD

The basing point method of quoting delivered prices in the steel industry has been the subject of criticism by certain economists and by the Federal Trade Commission for a number of years. The views of one of the critics, Professor Frank A. Fetter, are set forth in his book "The Masquerade of Monopoly." The Federal Trade Commission has issued a number of statements criticizing the basing point method, the most recent of which is a pamphlet entitled "Monopoly and Competition in Steel" which was submitted by the Commission to the Temporary National Economic Committee in March, 1939.

While at least one authoritative and comprehensive work on the steel industry has been published (Daugherty, deChazeau and Stratton—"The Economics of the Iron and Steel Industry"), it is believed that there exists a need for a shorter treatment of the fundamental economic traits of the steel industry and the pricing method which has evolved in this industry over a long period of years as a consequence thereof.

This statement has been prepared by the United States Steel Corporation in connection with the hearings on the steel industry before the Temporary National Economic Committee. It has a twofold purpose: first, to clarify in the mind of the reader who is not familiar with the facts, the origin and operation of the basing point method of quoting delivered prices in the steel industry and the theoretical nature of the criticisms of this pricing method; and second, to establish that this pricing method is the natural result of basic economic conditions in the steel industry and does not result in the absence of price competition. The delivered prices of steel products at any consuming point are determined by competition and not by an inflexible application of the basing point method.

THE OPERATION OF THE BASING POINT METHOD

DELIVERED PRICES

Steel is generally sold on a delivered price basis. A delivered price is the price of steel delivered at the town or city where the consumer of such steel is located. The use of delivered prices results largely from the fact that the cost of transporting steel from the steel mill is often a substantial part of its cost at point of consumption. Buyers for this reason are seldom interested in its price at any place except where they need it. Manufacturers of steel must take this factor into account.

Delivered prices are usually calculated on the basis of the price announced at the steel mill which is nearest freightwise to the buyer's destination. This method of calculating delivered prices is often called the "*basing point system*".

PITTSBURGH PLUS

Under the so-called "*Pittsburgh Plus*" practice, which the steel industry generally used until the 1920's, delivered prices were calculated on the basis of the quoted f. o. b. Pittsburgh price, with the addition of railroad freight from Pittsburgh to the buyer's destination, regardless of where the steel was produced. Pittsburgh was the basing point. This method of calculating the delivered price is often termed a "*single basing point system*". However, even during the so-called Pittsburgh Plus period, delivered prices were often calculated on the basis of the quoted f. o. b. price at other steel producing points, with the addition of freight from such points to the buyers' destinations. The practice of using basing points other than Pittsburgh did not become generally prevalent until about 1924.

¹ Exhibit No. 1418, hearings before Temporary National Economic Committee, Pt. 27, p. 14169, introduced in Pt. 20, p. 10803.

In 1924, the Federal Trade Commission ordered certain subsidiaries of the United States Steel Corporation to "cease and desist" from using the Pittsburgh Plus practice, and from selling steel products based on any point except the actual place of production or shipment. The practice of announcing prices at producing centers in addition to Pittsburgh, where such subsidiaries had mills, was then extended. Other producers announced prices at points selected by them. Such a point at which steel prices are quoted is generally called a "*basing point*" and is usually a place of steel production, although base prices for some steel products are quoted today f. o. b. certain ports on the Gulf of Mexico and on the Pacific Coast where there are no production facilities. This group of places at which steel prices were quoted was the nucleus of the present method of determining delivered prices in the steel industry, which is often termed a "*multiple basing point system*".

CALCULATION OF DELIVERED PRICES

The existence of many basing points makes the calculation of delivered prices much more complex than it was under the Pittsburgh Plus practice. Diagram 1 presumes the simplest possible situation, with one basing point, and one consuming point. The base price² at the basing point, A, is \$40.00.³ The freight from A to the consuming point X is \$4.00, making a delivered price of \$44.00. Diagram 2 presents a slightly more complicated situation. There are three basing points, A, B, and C, each with a base price of \$40.00. The freight to X from A is \$3.00, from B \$6.00, and from C \$5.00. If A, B and C were each to maintain such base price of \$40.00, there would be three delivered prices at X—\$43.00, \$45.00, and \$46.00. However, as the buyer naturally wants to purchase his steel as cheaply as possible, the lowest combination of base price and freight determines the delivered price. This means that the delivered price at X will be calculated by reference to A, the nearest mill freight-wise, and will be \$43.00 (\$40.00 base price plus \$3.00 freight). A will be the "*applicable basing point*" for sales to X.

The lowest sum of base price and freight determines the delivered price for competitive reasons. When a mill at A announces or quotes a base price of \$40.00, other producers know that such mill will sell at X for \$43.00, or, at any rate, for no more than \$43.00. If the outlying mills at B and C want the business, they will also quote \$43.00 to the consumer at X, because they know that the mill at A otherwise will undersell them. Thus the consumer at X may receive the same quoted delivered price from every mill.

The above paragraph ignores the fact that price concessions are common, especially in times of slack steel demand. Actually, the market price at X may be considerably lower than \$43, and any mill must meet such lower price, or give up the business. If a sale is made at a price lower than the lowest sum of base price and freight, the concession is often termed "*price absorption*".

FREIGHT ABSORPTION—MILL NET RETURN

To the extent that prices are uniform at X, this means that the consumer may give his business to any of the mills which are competing for such business. His final decision may rest upon his preference for the product of one of the mills, upon superior service, or upon one or more other factors outside of the basing point practice. If the mill at C secures the business, it will use only \$3.00 freight in calculating the delivered price, while it must actually pay \$5.00 for freight. The mill at B will also use only \$3.00 freight in calculating the delivered price, but will have to pay \$6.00. The difference between the freight used by these mills in calculating the delivered price, and the freight actually paid by them is often called "*freight absorption*." Freight absorption results from "*freight disadvantage*," or the fact that some mills are further away freight-wise from the consuming point than the mill at the applicable basing point. In this example, the mill at C will receive a delivered price of \$43.00 which, when the transportation cost of \$5.00 is paid, will result in a mill net return of \$38.00,—\$2.00 less than its base price. The mill at B will receive a delivered price of \$43.00 which, when the transportation cost of \$6.00 is paid, will result in a mill net return of \$37.00,—\$3.00 less than its base price. The amount realized at the mill, the delivered price less the transportation costs, is called the "*mill net return*." Only the mill at A will receive a mill net return equal to its base price of \$40.00.

² The use of the terms "base price" and "delivered price" in this memorandum is explained *infra*.

³ The figure \$40.00, used in the text and accompanying diagrams is purely arbitrary and is not to be taken as an actual price. Prices vary for different steel products.

THE BASING POINT METHOD

Most steel products are sold on a Delivered Price basis.

Diagram 1: How the Delivered Price is computed.

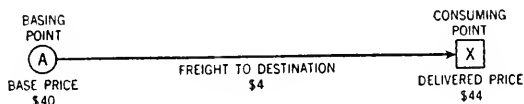


DIAGRAM 1

THE BASING POINT METHOD

Diagram 2: Explanation of Freight Disadvantage and Freight Absorption.

Mill at (A) has lowest Base Price plus Freight to (X)
 Mills at (B) and (C) are at a Freight Disadvantage;
 to sell at (X) they must absorb Freight.

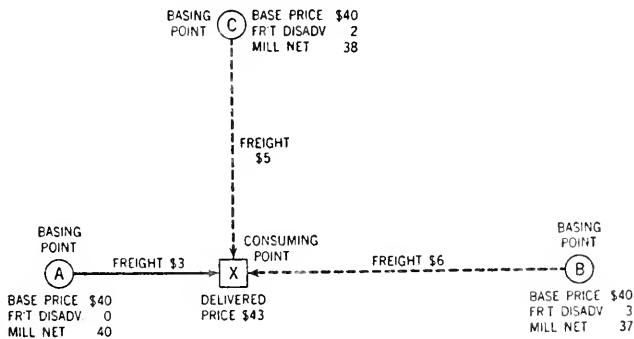


DIAGRAM 2

The term "freight absorption," it should be noted, is misleading in one sense. It implies that the mills pay freight charges which the consumer ought to pay. In fact, however, each mill is selling steel at a given destination, usually in competition with other mills. It has to meet the delivered price which other mills will quote, and it knows, within limits, what that price is. The mills which "absorb freight" are merely recognizing the fact that by reason of a lower freight rate the mill at A has a competitive advantage over them in selling to X.

MARKET PENETRATION

To the extent that prices are uniform at X, all of the mills are on an equal level in bidding, regardless of their distance from X. If the order is given to the mill at B or C, it is argued that the steel is shipped further than is necessary to lay it down at X, for the nearest source of supply is A. This practice of shipping from other than the nearest mill has been called "*market penetration*."⁴ It results principally from the competition of all the mills for the business at X. It may also be caused by a preference of the consumer for the product of a particular mill, or by the inability of the nearest mill to supply the consumer, or by one or more other factors outside the scope of this discussion.

MARKET INTER-PENETRATION—CROSS-HAULING

Market penetration occurs constantly because most of the larger producers in order to operate at a low unit cost compete in all of the major markets for the products they make. Consequently, while one mill sells for delivery at points nearer to other mills, it finds that more distant mills are making sales for delivery in territories nearer to it. The resulting shipments have been called by critics of the basing point practice "*cross-hauling*." Professor deChazeau has coined the term "*market inter-penetration*." It is not by any means clear what type of shipments critics of the basing point practice intend to include within the term cross-hauling.

Apparently some critics would call any shipment to a point nearer another mill having capacity to make the product a cross-haul. However, it is believed that the term "cross-hauling" should be limited to cross shipments of identical products at about the same time, as shown on Diagram 9, *infra*.

Such critics have asserted that cross-hauling is economically wasteful, and have assumed that the waste is more or less accurately measured by freight absorption. There are many reasons why this is not so. And, even assuming that cross-hauling could be satisfactorily measured, there are many reasons why it is not necessarily wasteful. Nothing is wasteful unless some means can be found to eliminate it, and unless the cost of elimination is less than what is saved. The alternatives to the basing point method would not necessarily eliminate all cross-hauling and they would probably cost more than the cross-hauling which now occurs.

SO-CALLED "PHANTOM FREIGHT"—FREIGHT ADVANTAGE

It has been shown that when a mill is at a freight disadvantage, it must absorb freight and accept a mill net return below its base price, if it wishes to compete with a mill located nearer to the buyer. In some cases, however, a mill is said to have a "*freight advantage*" which means that its delivered price will yield it a mill net return higher than the applicable base price. Diagram 3 illustrates one type of such a freight advantage. In this Diagram, A and B are basing points and c is a non-basing point mill. X is a point of consumption. Assuming a price of \$40.00 at basing points A and B, the delivered price of steel at X, predicated on A, will be \$44.00 (\$40.00 base price at A plus \$4.00 freight from A to X). A will be the applicable basing point. If the mill at c were a basing point, with a base price of \$40.00, it would be the applicable basing point for X, for it has the lowest rail freight rate (\$3.00). The mill at c, however, is not a basing point and has no base price, possibly because it is located in a territory where the demand for steel is greater than the local production. The mill at c will meet the delivered price of its competitors and quote the lowest combination of base price and freight calculated by reference to existing basing points.

⁴ By Professor Melvin G. deChazeau. See "Economics of the Iron and Steel Industry," by Daugherty, deChazeau and Stratton, Chapters XII-XIV, *passim* (Published by McGraw-Hill Book Company, N. Y., 1937).

THE BASING POINT METHOD

Diagram 3: Explanation of first type of Freight Advantage and so-called "Phantom Freight".

Mill at (A) has lowest Base Price plus Freight to [X].

Mill at (C) charges the same Delivered Price. Having a Freight Advantage of \$1 over (A), (C) realizes a Mill Net \$1 higher than (A). This \$1 is so-called "Phantom Freight".

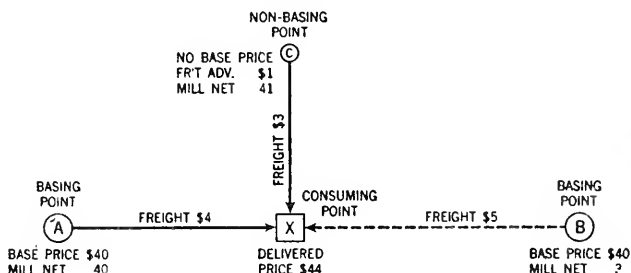


DIAGRAM 3

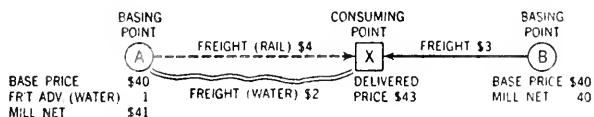
THE BASING POINT METHOD

Diagram 4: Explanation of second type of Freight Advantage and so-called "Phantom Freight"

Mill at (B) has lowest Base Price plus Rail Freight to [X].

Mill at (A) charges the same Delivered Price.

When mill at (A) ships by water it has a Freight Advantage of \$1 and realizes a Mill Net \$1 above its Base Price. This \$1 is so-called "Phantom Freight".



Note: When mill at (A) ships by rail it is at a Freight Disadvantage of \$1 and realizes a Mill Net \$1 below its Base Price

DIAGRAM 4

If the mill at c obtains the business at X, it will realize a mill net return of \$44.00, minus \$3.00 (actual freight) or \$41.00. Critics have dubbed this \$1.00 in excess of the applicable base price "*phantom freight*", because they say the mill at c charges \$4.00 for freight in calculating the delivered price, but actually pays only \$3.00. This terminology is misleading, and contains an erroneous implication. The mill at c does not charge \$4.00 for freight, or any other amount. On the contrary, it quotes a delivered price, which takes competitive advantage of its superior geographical location so far as this business is concerned, thus permitting it to realize a higher mill net return than the applicable base price of \$40.00. The mill at c uses the freight rate from A only to find out what the mills at A will quote at X. If the mill at c were to quote delivered prices, based on a base price at c which was \$1.00 higher than the base price at A and B, it would realize a higher mill net return on a sale to X just as it did before c became a basing point.

If a base price is quoted at a basing point, higher than the price at other basing points, the difference is called a "*basing point price differential*", or simply a "*differential*". The freight advantage of mills located nearer the buyer than other mills may be realized either by so-called "*phantom freight*" or by a differential. In either case, such freight advantage, due to the mill's location, could only be taken away from it by the erection of another mill equally near or nearer to its markets. It should be pointed out that, in most cases, non-basing point mills, and mills which quote prices with a differential, actually suffer a freight disadvantage due to higher raw material assembly costs, so that "*phantom freight*" or differential may be merely compensation for such assembly cost disadvantage.

"PHANTOM FREIGHT" ARISING FROM WATER TRANSPORTATION

Referring to Diagram 4, it will be seen that the delivered price at X predicated on shipment by B, is \$43.00 (\$40.00 base price at B plus \$3.00 freight from B to X). The mill at basing point A, however, can ship to X by water for only \$2.00. The delivered price at X will remain \$43.00, as, generally speaking, rail freight rates are the only transportation rates which are considered in calculating delivered prices. But if the mill at A gets the business at X, and ships by water, it will realize a mill net return of \$41.00 that is, \$43.00 minus \$2.00, or \$1.00 more than its base price. Critics also call this \$1.00 "*phantom freight*", because, as in the other case, they say the mill at A charges \$3.00 for freight in calculating the delivered price, but pays only \$2.00 for water transportation. Here again, however, the mill at A does not charge \$3.00 for freight or any other amount, but names a delivered price which permits it to profit from a competitive advantage, due to a superior geographical location so far as this business is concerned, over other mills which have to ship to X by rail, if they ship at all.

There are good reasons why the mill at A usually does not quote a delivered price at X based upon the cost of water transportation. First, a barge shipment must be much larger than a rail shipment before it can be carried economically. Comparatively few customers are willing to order the quantity of steel required for a barge load. This rules out many shipments which might otherwise be made by water. Second, water transportation is slower than rail, and buyers are not always willing to wait for water delivery. Third, facilities may not be available at destination for economically and efficiently handling a delivery by water. Fourth, shipments by water always involve extra costs at both mill and destination, which greatly reduce or eliminate any saving in transportation costs, except when shipped for considerable distances. Fifth, closed seasons of navigation by reason of climatic or flood conditions present transportation hazards uncertain in time or effect which prevent sound business determinations with respect to future delivery. Furthermore, if a delivered price of \$42.00 at X were quoted by the mill at A, other mills would meet this reduced price, and by offering quick delivery by rail would compel the mill at A to ship by rail. Thus the price at X would fall to the extent of \$1.00 and all the steel consumed there would still be carried in by rail.⁵

VARIABLE MILL NET RETURNS

From the discussion thus far, it appears that because of competitive conditions in the steel industry steel mills realize variable mill net returns in selling to different areas. If a mill is located at a basing point, it may realize a mill net equal to its base price on sales in the area nearest to it; on sales outside the area in which it

⁵ The problems of water transportation and the small extent to which this type of "*phantom freight*" may be realized are discussed at length in section C-6-(a)-(2) *infra*.

has a freight advantage, its mill net returns will steadily diminish as the freight disadvantage grows. "Phantom freight" occurs only if its delivered price is based upon rail freight and it uses a form of transportation cheaper than all-rail, as for example, barge shipments on rivers and lakes. By means of water shipment the area in which it can sell without freight absorption may be greatly increased, but in general the mill will realize its highest mill net returns on sales to its nearest customers and progressively lower mill net returns as the distance from the mill to the consumer increases. The same is true of the mill net returns realized by non-basing point mills. This practice of realizing variable mill net returns is often critically described as "*price discrimination*", and because it follows a more or less regular geographical pattern, it is therefore called by some critics "*geographical price discrimination*".

These critics contend that this so-called geographical price discrimination is unjust because the nearest customers have to pay the highest mill net returns. They say that under the basing point method the farther the customer is from a mill the lower is the mill net return, the inference being that distant customers are given a better price than near-by customers. Actually, the price to the buyer is the delivered price. This criticism, furthermore, if it has any application, is true only with respect to mills not at basing points, of which there are few today, and with respect to mills at basing points only on sales made within areas nearer another mill. The criticism places undue emphasis on the mill net return. The customer is only interested in the price he pays (the delivered price), not what the mill ultimately receives (the mill net return), and the delivered price to a customer near the mill generally is lower than the delivered prices to customers located farther away, except those located nearer another source of supply.

The fact cannot be ignored that steel is sold on a competitive basis and that the size of an economical steel mill is so large and its product so diversified as to require distribution of certain classes of its products in markets which are nearer to other mills. In the area in which a mill has a freight advantage, it naturally quotes a price which will enable it to realize that advantage. When it sells in an area nearer to some other mill, it has to accept a delivered price which will yield a lower mill net return, i. e., to be competitive it must meet the delivered price which the nearer mill is quoting. This is not a "discrimination" in any sense of the word; it is competition. As between a customer nearby and a customer far away, there is no uniformity of conditions of purchase on which properly to base a charge of discrimination.

NATURAL MARKET TERRITORY

The variance in mill net returns is illustrated by Diagrams 5 and 6. Diagram 5 shows the general effect of freight charges upon the competitive position of a mill. A and B are basing points, each with a base price of \$40.00. The line *O-O* connects points at which the delivered prices calculated by reference to A and B are equal. Thus, at X the delivered price calculated from the base prices and freight from both A and B, is \$47.00. At Y, the delivered price is \$46.00 and at Z, the delivered price is \$45.00. This means that both mills can sell in X, Y and Z without absorbing freight. The line connecting X, Y and Z is the boundary of what is sometimes termed the "*natural market territory*" of the mills at A and B. The term natural market territory is used here in a special sense, meaning the area in which each mill can sell at a delivered price calculated on the basis of its own base price, plus the actual freight to the point of delivery. Because of the desirability of operating each mill at a high rate of production and thus obtaining a low unit cost, and of maintaining an even flow of orders, neither mill limits its sales to its own side of the line. Each mill must reach the markets where the demand exists for its products.

The mills at B have a competitive advantage in selling on their own side of the boundary *O-O* but they must absorb freight in selling on A's side of the line and in increasing quantities as they approach A, because on that side of the line delivered prices are calculated by reference to freight rates from A. This fact is illustrated by Diagram 6. The line *O-O* is again the boundary of the natural market territories of mills at basing points A and B. At Y, a consuming point, the delivered price, calculated by reference to A, the nearest basing point, is \$41.00. The mill at B, which realizes its base price on a sale to X, must absorb \$3.00 freight in selling to Y, because its delivered price at Y cannot be in excess of \$41.00, while it must pay \$4.00 freight. Thus, when a mill sells outside its natural market territory, the delivered price often falls, while the freight actually paid always increases, and these two factors combine to reduce the mill net return.

THE BASING POINT METHOD

Diagram 5: Determination of Boundary between Natural Market Territories

The Boundary dividing the Natural Market Territories of mills at Basing Points (A) and (B) is the line O-O connecting the points at which the delivered prices from (A) and (B) are equal.

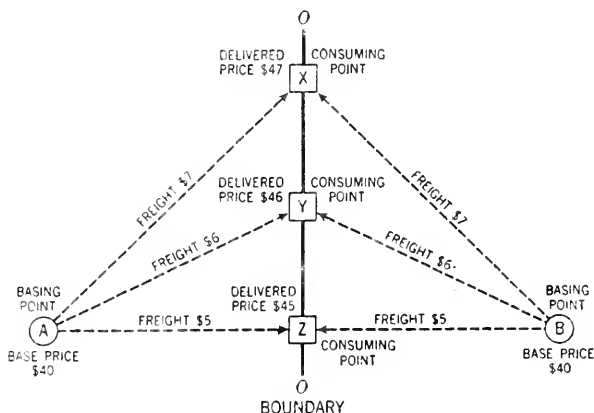


DIAGRAM 5

THE BASING POINT METHOD

Diagram 6: How shipping beyond Boundary of Natural Market Territory reduces Mill Net.

When mill at (B) sells to [X], its Mill Net is \$40.

When mill at (B) sells to [Y], its Mill Net is only \$37 because

1. Freight is \$2 higher.
2. Delivered Price is \$1 lower.

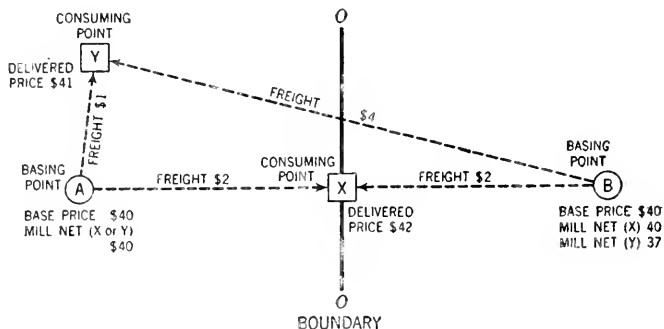


DIAGRAM 6

THE BASING POINT METHOD

Diagram 7 Non-basing Point Mill.

Mills at Basing Points (A) and (B) realize full Base Prices on sales in their respective Natural Market Territories.

Non-basing Point mill at (C) has no Base Price and meets the Delivered Prices of (A) and (B) when it sells in their respective Natural Market Territories.

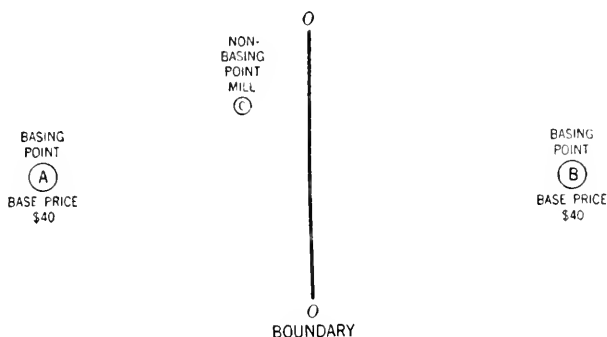


DIAGRAM 7

THE BASING POINT METHOD

Diagram 8: Effect of naming new Basing Point.

After (C) becomes a Basing Point, the Boundary OO between (A) and (B) ceases to be significant.

Mill at (C) then has a Natural Market Territory, bounded by NN and $N'N'$, in which it establishes lower delivered prices than (A) or (B).

To sell in this territory, mills at Basing Points (A) and (B) must now absorb freight.

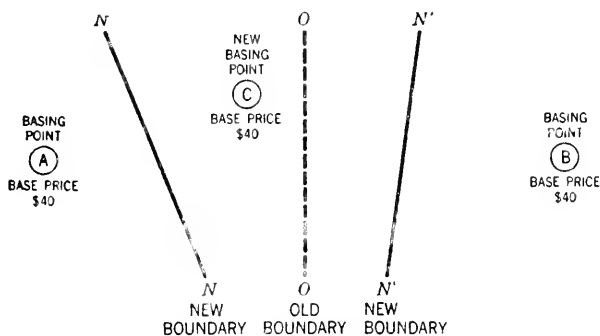


DIAGRAM 8

EFFECT OF NEW BASING POINT

Diagrams 7 and 8 illustrate the effect of naming a new basing point. In Diagram 7, A and B are basing points, and c is a non-basing point mill. The line O-O is again the boundary between the natural market territories of A and B. Mills at these basing points will realize mill net returns equal to their base prices on sales on their own side of the boundary line O-O. The non-basing point mill at c has no base price, and in naming the delivered prices at points in the natural market territories of A and B meets the delivered prices of A and B at such points.

THE BASING POINT METHOD

Diagram 9: Illustration of Cross-hauling.

Products shipped from (A) to (Y) go past products shipped from (B) to (X)

This involves Cross-hauling only if

1. The products shipped are identical.
2. Shipments occur at substantially the same time



DIAGRAM 7

Suppose that the mill at c decides to make c a basing point, and announces a base price of \$40.00. Any non-basing point mill may at any time announce base prices and thus become a basing point mill. Diagram 8 shows the immediate effect of this change. The line O-O marking the natural market territories of A and B now ceases to be significant. Instead, the two new boundaries N-N and N'-N' arise. The mill at C now realizes a mill net return equal to its base price on sales in the territory between N-N and N'-N'. The mills at A and B must absorb freight in selling to some parts of their old natural market territories (between N-N and O-O and between N'-N' and O-O), in which they formerly realized mill net returns equal to their base prices. The effect of so naming the new basing point has been to lower prices in the area between N-N and N'-N', and to increase the territory in which the mills at A and B must absorb freight in order to sell, but it should be noted that these consequences follow only if the base price named at C is equal to, or lower than the base price at A and B.

* * * * *

In order to simplify the above discussion, no mention has been made of one of the elements of the delivered price to a buyer. "Extras" are amounts added to or deducted from the base prices announced for product classes in order to take care of the particular buyer's specifications of size, special quality, special treatment, or quantity. Announced prices, not including extras, are termed "base prices", and, depending upon whether or not the freight charges to destination are included, are termed "basing point base prices" or "delivered base prices". Prices quoted for delivery at given destinations, including both freight and extras, are termed "net delivered prices". The use of the word "base" as an adjective meaning "without extras", and the use of the same word "base" as a noun,

meaning basing point, and also the use of its derivative, "based", is often confusing to persons not familiar with steel industry terminology. In common parlance outside of the steel industry, "base price" and "delivered price" are used to differentiate between the announced price at the basing point and the price at the destination which is the price quoted to the buyer. Such terminology, while strictly not in accordance with the words used within the steel industry, need cause no confusion as long as extras are not involved, as is the case in the present discussion. Since this simpler terminology has been used in most of the theoretical analyses of the basing point method and in public discussions thereof, it has been adopted herein.

HISTORICAL MATERIAL ⁶

The production of iron in America began in a limited area east of the Alleghenies, centered around Philadelphia, which was also a principal port of entry for foreign iron. A contemporary author, writing of the industry as it was in the 1750's, presents a clear picture of a rudimentary basing point structure. Prices on domestic iron were apparently quoted f. o. b. Philadelphia and were higher in the outlying territory where the iron was actually made. The manufacturers absorbed freight in order to move their iron to the central market, where it competed with foreign iron.⁷

Philadelphia's dominance did not endure. Better ores from the Lake Superior district and good coking coal in the vicinity of Pittsburgh later caused the vast development at Pittsburgh which rapidly reduced the importance of the eastern Pennsylvania iron makers and their market. This shift had been accomplished, at least in rolled products, by 1884.⁸

In spite of the remarkable evidence of a basing point price structure centered on Philadelphia prior to the Revolution, there seems to be little doubt that prices in early days were usually quoted f. o. b. the mills. The industry was small-scale, and probably local producers discriminated in price between buyers, and enjoyed the other privileges of local monopolies, due to immunity from outside competition.⁹ F. o. b. mill prices seem to have been the general rule at least until the 1880's.¹⁰ Such price system was in the process of gradual change during a period which extended to the late 1890's.¹¹

One writer ¹² has interpreted the successive steps in the change of the price structure from an f. o. b. mill basis to a delivered price basis in terms of the growing scale of operations and of the shift from iron to steel products. The mills were increasing in size and capacity, serving wider areas, and concentrating, at the same time, in centers where the necessary raw materials could be assembled at a low cost. For example, in the thirty years before 1899, pig iron production per establishment increased 1,258 percent, and per employee, 416 percent, while steel works and rolling mill production per establishment increased 777 per cent, and per employee, 179 per cent.¹³ This trend has continued, as shown by the fact that between 1889 and 1938 the number of individual blast furnaces in the United States declined by 60%, while the national capacity for the production of iron increased by 300%. At the beginning of the period there were 575 blast furnaces, operating in 162 counties and 24 states; at the end of it, there were only 236 furnaces, located in 56 counties and 17 states.¹⁴

The growth in size and capacity of blast furnaces and steel mills and the material increase in investment and overhead costs, combined with the centralization of producing units, the widening of markets and the increasing significance of transportation costs in the cost of steel to the consumer, gradually developed a price structure which would better meet the needs of the steel industry. It was necessary for these large steel mills to have a wide market for their various products in order to maintain a satisfactory rate of operations and thus achieve a low unit cost. In the opinion of Professor deChazeau "this evolution of the economic

⁶ The material in this section was largely drawn from the Trial Examiner's Report on the Facts in the *Pittsburgh Plus* case before the Federal Trade Commission (1924).

⁷ Acrelius' History of New Sweden, printed in 1759. See the Report of the National Recovery Administration on the Basing Point System in the Iron and Steel Industry, dated Nov. 30, 1934, p. 18. This source is hereafter referred to as the NRA Report.

⁸ NRA Report, pp. 19, 36.

⁹ NRA Report, p. 34.

¹⁰ Daugherty, deChazeau, and Stratton, *Economics of the Iron and Steel Industry*, p. 533, citing the Federal Trade Commission's Practices of the Steel Industry under the Code (Report to the U. S. Senate, 73rd Cong., 2nd Sess., Doc. 159, 1934) p. 60. See also the Trial Examiner's Report on the Facts in Federal Trade Commission v. U. S. Steel Corp., pp. 68-9. This source, which will be referred to as the Trial Examiner's Report, is found on pages 35-380 of the Statement of the Case by *Amici Curiae*, V. 1.

¹¹ Daugherty, etc., *op. cit.*, pp. 538-9.

¹² Professor Melvin G. deChazeau. See Daugherty, etc., *op. cit.*, pp. 534, 536.

¹³ *Op. cit.* p. 536.

¹⁴ Steel Facts, Nov. 1938 (No. 29), p. 3.

forces impinging upon competitive practices seems more important than the birth of a dominating corporation" in explaining the development of the basing point method.¹⁵

When the United States Steel Corporation was formed in 1901, the evolution in the price structure of the steel industry, which had been going on for several decades, had crystalized to the extent that most steel products were then sold on a delivered price basis and a great many on a Pittsburgh base price plus freight from that city.¹⁶

The development of the Illinois Steel Company made Chicago important in the steel industry as early as 1897. By 1908 the Chicago mills had grown to such extent that they were definitely shipping outside their local market territory. This growth has continued. The trial examiner in the Pittsburgh Plus case found that in a circle with a 60 mile radius centered on Chicago, there was an ingot capacity of 3,230,900 tons in 1908, and that by 1913 the ingot capacity had grown to 5,557,800 tons.¹⁷ From October, 1911 until March, 1912, the Pittsburgh Plus price system vanished in Chicago, and prices were quoted by Chicago mills on a Chicago base.¹⁸ Such a Chicago base price was established for bars, plates, and shapes, among other products. The report of the National Recovery Administration in 1934 thus analyzed this change:¹⁹

"In the growth of the Chicago District's productive capacity, we find early signs of the natural basing point development, whereby when capacity in a district increases to the point where it begins to require all its own market and to press for more, it breaks away from the 'mother' basing-point, stands on its own feet and quotes its own base prices which are lower than prices delivered from distant producing points. * * *

"While this early defection of Chicago from the Pittsburgh base prices was only temporary, it is an indication of the maturing of the Chicago District as an independent basing point, and it is common knowledge that while Chicago base prices were not regularly published, they existed whenever the producers in Chicago found it to their advantage to quote under the ruling Pittsburgh plus prices, long before the Federal Trade Commission's order issued in 1924 requiring the United States Steel Corporation and certain of its subsidiaries to cease and desist from selling at 'Pittsburgh Plus' prices."

Aside from a brief period of Government price control during the World War, the Pittsburgh Plus practice was generally followed in the steel industry until the 1920's. In February, 1921, a price war developed at Chicago with the result that by July of that year Pittsburgh Plus prices on plates, shapes and bars had to a large extent been abandoned in the Chicago district.²⁰ By January, 1923, the Chicago mills were selling large quantities of steel products on a Chicago mill base, but prices seem to have recovered to some extent.²¹

Underlying this war of prices was the fact that Chicago and other new centers of production had developed enough capacity to supply their own local markets and to require other outlets. Under these circumstances, it was natural that new basing points should be established. Opposition to the Pittsburgh Plus practice had also developed among the fabricators in the Middle West, possibly caused by the large increases in freight rates which were made during and after the war. In 1921 action was begun by the Federal Trade Commission to investigate the Pittsburgh Plus pricing method, and to determine whether it violated any provision of law. This proceeding was directed against the United States Steel Corporation and certain subsidiaries thereof. In 1924, the Federal Trade Commission ordered certain subsidiaries of the United States Steel Corporation to "cease and desist" from selling at prices based on any point except the actual place of production or shipment.

The increase in the number of basing points then accelerated. The subsidiaries of the United States Steel Corporation announced base prices at many cities where they had plants. These new prices were higher than the base prices at Pittsburgh, but at many points of consumption resulted in delivered prices which were less than the full Pittsburgh Plus prices had been before the order of the Federal Trade Commission. Other steel producers began to name basing points of their own, and the number of basing points slowly increased. The naming of a

¹⁵ deChazeau, in Daugherty, etc., *op. cit.*, p. 534.

¹⁶ *Id.* pp. 534-8. The Trial Examiner's Report on The Facts in Federal Trade Commission v. U. S. Steel Corp. states that by 1901 and 1902 the Pittsburgh Plus system had appeared as an established system, p. 181.

¹⁷ *Id.*, pp. 298-9.

¹⁸ *Id.*, pp. 81, 139-40, 184-5, 534-5. The ingot capacity in 1918 was 7,941,850 tons, and in 1923 it was 8,545,935 tons. Trial Examiner's Report, p. 299.

¹⁹ NRA Report, pp. 39-40. See January 4, 1912 issue of Iron Age, p. 59.

²⁰ Trial Examiner's Report, pp. 84-85.

²¹ On the Chicago price break, see also *id.*, pages 94, 141-2, 187, 424, 425-8, 536.

basing point through the announcement of base prices at such point rests solely in the discretion of the particular steel producer.

The NRA Steel Code recognized and continued the use of the basing point method in the steel industry. There was some increase in the number of basing points, but the method remained unchanged in its main outlines. It should be noted that during the Code period two groups of cities, one on the Gulf of Mexico, called "Gulf Ports", and the other on the Pacific Coast, called "Pacific Coast Ports", were added to the list of basing points. There is no production at the Gulf Ports and comparatively little production at the Pacific Coast Ports. Base prices were introduced at these ports, principally to meet foreign competition. Delivered prices, which were lower than the base prices at the applicable basing points plus rail freight therefrom to these ports, had been quoted at these ports for some time before the NRA Code, and the formal naming of base prices at these ports may have been merely a recognition of an existing condition.

During the Code period, the President of the United States issued an executive order requiring the NRA and the Federal Trade Commission to study the operation of the steel basing point practice under the Code, and to report to him their findings. The Federal Trade Commission, in its report, clung to its old opinion that the basing point method was an undue restraint on competition, and that steel should be sold at uniform f. o. b. mill prices without freight absorption. The NRA Committee, however, came to the conclusion that the basing point method was a competitive method of selling, and was properly suited to the requirements of the steel industry. The NRA Committee did not believe that the uniform f. o. b. mill price system with elimination of freight absorption would produce competition of a useful kind. The NRA report recognized that some measure of freight absorption was necessary to enable the mills to function efficiently, but expressed the belief that freight absorption and cross-hauling should be limited by establishing some sort of limitation upon sales in areas where the mills had freight disadvantages. The report also stated that owing to the few number of basing points there were still some areas in which too much "phantom freight" was realized. The report concluded by suggesting two similar plans for modifying the basing point practice in these respects, the second of which plans it favored. Both plans, which need not be discussed in detail, were designed to change the basing point method into a producing center method of marketing steel, to reduce "phantom freight" to a negligible quantity by the addition of new basing points and to reduce cross-hauling by a limitation upon freight absorption. With these modifications, the NRA Committee believed that the basing point method would serve the best interests of the steel industry and the public more efficiently than the uniform f. o. b. mill price system would do, and that it would remedy any abuses without destroying existing investments. Neither plan suggested in the NRA report was put into operation. The National Industrial Recovery Act was declared unconstitutional in May, 1935, and the Steel Code was immediately abandoned.

On June 24, 1938, subsidiaries of the United States Steel Corporation reduced the base prices on many steel products at the several basing points where they had producing mills, and in addition abolished almost all of the price differentials at basing points outside of Pittsburgh. Other producers made adjustments by naming lower base prices and new basing points of their own. These changes have resulted in the establishment of basing points in almost all areas of large production, and have increased the necessity of absorbing freight to reach the various consuming areas, while decreasing the possibilities of the realization of "phantom freight".

CRITICISMS OF THE BASING POINT METHOD

1. "PERFECT COMPETITION" AND THE STEEL INDUSTRY

Present day ideas of "*perfect competition*" are abstractions derived by classical economists from the fairs and markets of the 18th century and earlier times. In order to have a perfectly competitive market it would be necessary: (1) that the commodity dealt in be strictly uniform; (2) that there be so many sellers independently offering the commodity for sale, and so many buyers independently bidding for the commodity, that no one seller or buyer could influence the price level in the market; (3) that sellers and buyers would know all or at least many of the offers and bids; (4) that all sellers and buyers would be free to enter or retire from the market; and (5) that as a consequence of the preceding conditions, price would be the only possible inducement for any buyer or seller to consummate a sale. Under such conditions there would be a prevailing market price and it would be impossible for sellers to get higher prices from some buyers than from others. Since no producer could affect the market price, he would maintain his

operations at the point at which the additional cost of producing an additional unit would be equal to the market price. It should be noted that "perfect competition" means competition solely in price and is sometimes called "*pure price competition*", which is probably a more descriptive term. It excludes the possibility of inducing purchases by selling or advertising activities.

Competition which deviates from the assumed state of facts on which the theory of "perfect competition" is based, results in what is called by the economists "*imperfect competition*". This term can be easily misunderstood by the ordinary reader. It may be taken to mean complete lack of competition (that is, "*perfect monopoly*"), or an agreement or other behavior restraining competition in violation of the anti-trust laws.

In fact, however, the term "imperfect competition" as used by the economists covers the whole range of conditions between theoretical "perfect competition" and theoretical "perfect monopoly," neither of which actually occurs in the business world, but which are concepts used in the science of economics for the purpose of analyzing elements of market phenomena. "Imperfect competition," therefore, might equally well be called, and is sometimes called, "imperfect monopoly." It is merely a term used to describe conditions as they are in the business world, in which there is competition, not only in price, but also in advertising, selling, adaptation of product to the market, and many other factors. The term has no ethical or legal implications, and is used in the sense described above by most economists regardless of their social or political views. Nevertheless, it is difficult in social and economic controversies, to limit the term to its proper definition.²²

The term "imperfect competition" is particularly misleading to one not versed in economic terminology, since it may be taken to imply that "perfect competition" is a standard of what competition ought to be in the business world. This was certainly not the intention of the classical economists who formulated the concept. "Perfect competition" was assumed to be the result which would follow the presence of the assumed conditions set forth above, but it was not expected that it would or should result in the absence of such conditions, and the classical economists were well aware that there were deviations from such conditions in the business world of their own day, which resulted in "imperfect competition." Consequently, when "perfect competition" is set up as a basis for criticizing current industrial practices, a use is being made of the term which was not intended by the theorists who first employed these words. "Perfect competition" is an abstraction, and exists nowhere.²³

²² Professor Edward Chamberlin of Harvard University, in his "Theory of Monopolistic Competition," published by the Harvard University Press, in which he attempts to formulate a concept for studying practical economics based neither on "perfect" or "pure" competition, nor "perfect" or "complete" monopoly, but upon actual conditions, states (p. 10):

"Because most prices involve monopoly elements, it is monopolistic competition that most people think of in connection with the simple word 'competition.' In fact, it may also be said that under pure competition the buyers and sellers do not really compete in the sense in which the word is currently used. One never hears of 'competition' in connection with the great markets, and the phrases 'price cutting,' 'under-selling,' 'unfair competition,' 'meeting competition,' 'securing a market,' etc. are unknown. No wonder the principles of such a market seem so unreal when applied to the 'business' world where these terms have meaning. They are based on the supposition that each seller accepts the market price and can dispose of his entire supply without materially affecting it. Thus there is no problem of choosing a price policy, no problem of adapting the product more exactly to the buyers' (real or fancied) wants, no problem of advertising in order to change their wants. The theory of pure competition could hardly be expected to fit facts so far different from its assumptions."

Professor Frank H. Knight in his "Risk, Uncertainty, and Profit," page 193, states that under economic theory practically every business is a partial monopoly, and points out that, in view of this, it is remarkable that the theoretical treatment of economics has related so exclusively to complete monopoly and perfect competition.

²³ In the proceeding now pending against the cement industry, Dr. Jacob Viner of the University of Chicago, a witness for the Federal Trade Commission, testified as follows:

"Q. Will you describe for us just what you mean by 'fully competitive' method of selling? What are its requisites? A. Well, its appearance would be that of a movement downward of price at any time when orders were flowing in less rapidly than the capacity of the— the comfortable capacity of the plants of the producers to meet them, and the movement up of price, whenever orders were coming in at a quantity such as to press the capacity of the plant at the existing price, the requisites of the existence of such a state of affairs would be the existence of a substantial number of producers so that what anyone—of substantial coordinate importance or unimportance—so that what one individual producer should do would not be a matter of substantial concern to any other producer in the industry, and so that this group should behave as individuals rather than in a concerted fashion through arrangement. Q. Would you say that those are all of the requisites needed for the existence of complete competition, Doctor? A. I think so. Q. Now, again, will you list for us all of the industries that use what you call a fully competitive method of selling? * * * A. I would say there are very nearly none at the present moment. I won't vouch for there not being one. I would say that wheat is still very near—wheat growing—very near a fully competitive industry, but I would not say that it is quite that, because of Government interference. And so with oats, and barley, rye, and hay, although hay may be. I don't think that hay is under any sort of control, but you would have to hunt for them, I will say that. You will have to hunt for them, they are not easy to find now. * * * Q. So, at the present time, you have not such knowledge that would enable you to say—to make such statement, as I understand it? A. That there exists. Q. A fully competitive industry? A. A fully competitive industry. Q. Yes. A. No, there does not." See Record of proceedings of the Federal Trade Commission against Cement Institute, et al, pp. 15314-15317.

Since deviations from "perfect competition" are universal, and "imperfect competition" merely implies deviations from an abstraction, it is obviously an error to conclude that such deviations are necessarily signs of monopoly, in either the legal or ordinary business sense, or that such deviations can or should be prevented by law.

This discussion of economic terminology has been necessitated by the fact that the classical model of "perfect competition" seems sometimes to be held up as a practical standard, in spite of the manifest absurdity of such a position. There are those who insist that "perfect competition" naturally results from the absence of restraints, that it automatically develops whenever men can be prevented from interfering with its development, and that, when realized, it solves all our economic ills. The criticisms of the basing point practice in the steel industry all stem from the proposition that it results in deviations from "perfect competition," and the proposed alternative, the uniform f. o. b. mill price system, is put forward as a supposed means of realizing "perfect competition."

Both the criticisms and the proposal of such alternative system ignore factors in the steel industry which necessarily produce conditions differing from the assumed conditions of the theory of "perfect competition," and therefore must be expected to result in "imperfect competition" under any pricing system. There will often arise, in discussing separately the criticisms of the basing point practice, the question of whether a given departure from the assumed conditions of "perfect competition" is due to the basing point practice or to some fundamental economic trait of the steel industry. Likewise, in discussing the proposed uniform f. o. b. mill price system, the question will often arise of whether such system is compatible with the fundamental economic traits of the steel industry. It seems pertinent, therefore, to consider briefly these economic traits.

(a) *Geographical Separation of Producers.*

The more important raw materials for steel,—iron ore and coking coal—are concentrated in a few deposits. Iron ore is found principally in Minnesota and other States bordering on Lake Superior, in Alabama, and in restricted areas of the West. Coking coal comes, for the most part, from the fields of Pennsylvania, West Virginia, Kentucky, and Alabama. Limestone occurs more generally throughout the United States. When using ore of high metallic content, it takes more than 4 tons of raw materials (including coal for power and heating purposes), to produce one ton of finished steel. Consequently it is necessary to locate steel mills in areas where raw materials can be assembled at a low cost.²⁴ This is a factor of greater importance than nearness of the steel mill to important markets. The NRA Committee which studied the operation of the basing point practice under the Code concluded:²⁵

"* * * the principal producing centers will always be confined to those areas within which assembly costs are lowest, such as the general Pittsburgh and Ohio River District, the Great Lakes cities, the Birmingham District, and Eastern Pennsylvania and Maryland. Steel producing outside such minimum cost assembly areas must be limited to the availability of low cost melting scrap."

Assembly costs of raw materials limit the construction of economical integrated steel plants to a few areas, resulting in steel mills often at great distances from each other. Most steel products are now produced in the Pittsburgh-Youngstown district, the Buffalo district, at Sparrows Point, Md. and in the Philadelphia-Bethlehem district, at Chicago-Gary, and at Birmingham, Alabama, although some products are also produced in Colorado and on the West Coast and, in smaller quantities, at other points. Producers so widely separated from each other, with differing freight costs to the areas of demand, do not at all resemble the picture of a "perfectly competitive" market, which assumes many sellers and many buyers in close contact with each other, such as upon the floor of a stock exchange.

(b) *Size of Plants.*

Large scale integrated operations produce steel at a lower cost per ton than small ones. Furthermore, a mill large enough to produce a diversified list of steel products has merely by reason of such size a large tonnage capacity. Therefore, the size of individual plants and the amount of the investment therein have grown enormously, and at the same time there necessarily has been a reduction in the number of integrated producers of steel. Today there are about a dozen such companies in the country. To obtain the even flow of orders required to keep these large mills operating at a satisfactory rate and thus achieve a low unit cost, it is necessary that their products be sold in areas where the demand therefor

²⁴ It is also necessary to have available large quantities of water, principally for cooling purposes.

²⁵ NRA Report, p. 12.

exists, even though outside of the local district surrounding the mill. As a consequence, every seller of steel products must consider, among other things, the effect of his price policy upon the steel markets of the country and he must take account of what other sellers will do if he raises or reduces his base prices. He does not limit his reflections to the probable reactions of producers near at hand, but must consider, as well, possible responses of producers far away. In all of these ways the steel industry in actual operation varies from the assumed conditions underlying the theory of "perfect competition."

(c) *The Nature of the Demand for Steel.*

Demand in a "perfect" competitive state is assumed to be concentrated in some market. The demand for the diversified products of a large steel mill is not concentrated in any one market or any few markets, and the pattern of the demand for each of such diversified products presents peculiar characteristics. The demand for certain grades or classes of sheets and strip shows a high degree of concentration in the Detroit area, with lesser degrees in the Philadelphia, Chicago, Cleveland, and Cincinnati areas, while for other grades or classes the demand is scattered or concentrated elsewhere. Fabricated structural steel is sold principally in the large metropolitan areas, and important unpredictable fluctuations occur in the relative demand in such areas. Furthermore, from time to time the heaviest demand shifts to widely scattered areas where important structural jobs are undertaken. Very similar products are destined for the east and west coast shipbuilding industries, and the central Pennsylvania railroad carbuilding industry. Tin plate demand is somewhat concentrated in a few markets, such as New York, Chicago and the West Coast, but is largely scattered among various areas where different types of canning industries are located, and to a high degree the demand in the latter areas is subject to seasonal shifts and fluctuations. Some tubular products have a widely scattered distribution, while others, such as oil country products, move principally to the Texas and Oklahoma oil fields, or those of the West Coast. To effect low cost operations, each producer attempts to operate his mills at as high a rate of production as possible. To do so, he must have a diversification of products, as it is dangerous to establish integrated facilities merely to produce a few finished steel products, and to sell such products he must reach the actual markets of the country, however widely separated they may be. Also, he must have access to the most important markets for individual products in order to avoid seasonal and other shifts and fluctuations in demand.

The demand in a "perfect" competitive market is supposed to be divided among the many buyers, none of them large enough to affect the level of prices. The demand for many important steel products is concentrated in the hands of a relatively few large buyers, such as the automobile and container companies, whose requirements are an appreciable part not only of the market for particular products, but also of the whole steel market. Accordingly, the requirements of these large buyers may affect price levels, which is quite at variance with the theory of "perfect competition".

In a theoretical "perfect market", demand is assumed to have some degree of elasticity, that is, consumption is assumed to increase or decrease in response to decreases or increases in price. In the steel industry this degree of elasticity is extremely low; the demand for steel is very inelastic. Since the cost of steel is only a small part of the total cost of the finished consumer product, the price of steel has very little effect upon the ultimate consumer demand.²⁶

Under "perfect competition", the demand for the product of an individual producer (as differentiated from the product of the industry as a whole), would be infinitely elastic, since uniformity of product and indifference of buyers and sellers to any factors except price are among the conditions assumed. Thus each producer's participation in the total business would increase without limit if his price were below (or decrease to zero if his price were above) the prevailing price. Obviously this condition of "perfect competition" does not exist in most industries. Advertising, trade names, style preferences, geographical distribution of sellers, etc., have tended to reduce the elasticity of the demand for the product of individual producers. For example, advertising and trade names enable sellers of cosmetics, tooth paste and other similar commodities to hold customers, within limits, even though their prices are above the prevailing level for such commodities. In the steel industry, contrary to the general circumstance, the under-

²⁶ On the other hand, differences in prices paid by competing manufacturers for the steel used by them is an important consideration. A large disturbance in the relative market levels in different important markets for steel products, such as might be brought about by a uniform f. o. b. mill price system, might seriously affect the competitive position of some manufacturing customers of steel mills.

lying conditions make for a high elasticity in the demand for the product of an individual producer. Since buyers are good judges of the quality of steel, intense competition, assisted by the science of metallurgy, has caused great uniformity in the products of all steel producers. Customers generally order in large quantities, which makes a small price cut worth bargaining for. Consequently, a small difference in price will shift large orders from one producer to another, but will not increase the total consumption of steel.

Thus, the demand for steel is dispersed over wide geographical areas, and is to a great extent concentrated in the hands of a few large buyers whose individual requirements and bargaining powers are often large enough to affect the level of prices. The demand for steel substantially resembles one of the assumptions of "perfect competition," in one respect, namely, that any individual producer's participation in the market responds very quickly when he names a price below the prevailing level. The producers with higher prices simply lose this piece of business. However, reduction in price does not materially affect the total quantity of steel which the market will absorb.

(d) Fluctuations of Demand in the Business Cycle.

The concept of "perfect competition" assumes conditions not corresponding to reality and ignores some major complicating factors. In particular, it assumes a fairly steady and predictable rate of demand for various products, thus ignoring cyclical fluctuations in demand. This is a fatal omission in the application of the theory of "perfect competition" to problems in which the business cycle is important. Experience over a long period of time has shown that the demand for durable goods, including steel, fluctuates violently, and in a manner which makes it almost impossible to predict the occurrence and degree of such fluctuations. If a durable goods industry is built to supply the peak or near peak demand of the business cycle, it will necessarily have a large amount of idle or unused capacity during other phases of the cycle. Likewise if it is built to supply only the demand at the lowest point, or even the average demand, it will be unable satisfactorily to serve the consumer during the higher phases of the cycle.

Fluctuations during the past two years furnish a striking example. According to weekly estimates collected and distributed by the American Iron & Steel Institute, ingot output was at 92.3% of capacity for the week of April 26, 1937, a high for recent years. By December, 1937, it had dropped to 19.2% (week of December 27), the low for recent years. After fluctuating between 22.4% and 62.6% during 1938 (weeks of July 4 and November 14), the rate was 38.5% in July, 1939 (week of July 3). The rate rose to 63% for the week of August 28, 1939 and for the week of October 16 reached 90.3%, a high since April, 1937.

(e) Costs in the Steel Industry.

Under "perfect competition," as demand decreased and prices fell, the producer with the highest costs would be driven from the market, at least temporarily. The price would stop falling when it reached the level which would keep in business the marginal producer, i. e., the highest cost producer whose production was required to meet the existing demand. The price level at all times would be just above the additional cost of producing the last unit necessary to supply the demand, regardless of whether or not this price covered the average cost, including overhead, of producing all units.

A large proportion of the costs in the steel industry are overhead costs, which must be met, no matter how much or how little steel is produced. The additional cost of producing additional units, however, remains fairly constant at all levels of production up to very near capacity production. Thus, while the overhead costs per unit decrease as the rate of production increases, nevertheless the average cost per unit, including overhead, remains considerably higher than the additional cost of producing additional units, from a low level of production to very nearly the point of capacity production. As a result of these factors, under "perfect competition," in a period of decreasing demand and falling prices, the level of steel prices would almost immediately reach a point, which, while still just above additional costs, would be below average costs.

High overhead costs, the very large expense incurred in shutting down and starting up mills and departments of mills, and the costliness of intermittent operations, and the disruption of working forces caused thereby, also make it virtually impossible for producers to retire from the market in a period of falling demand and subsequently to re-enter the market as demand increases. Even high cost producers will try to keep on producing and selling as long as the price realized

is more than the additional cost of producing additional units, even though such price may be considerably below average cost, since overhead continues and thus any long continued retirement from the market means bankruptcy and permanent retirement. These results and the causes thereof were not contemplated in the theory of "perfect competition."

(f) *Cyclical Fluctuations and Overhead Costs.*

When the effects of large overhead costs are considered in conjunction with the extreme cyclical fluctuations which are characteristic of durable goods industries, it can readily be seen that the results would be disastrous, if "perfect competition" prevailed. In the early stages of the downward phase of the cycle high cost producers would find themselves losing more than their overhead costs and would soon be forced out of business. Lower cost producers would lose most of their overhead, but rather than retire immediately, would continue producing as long as prices were just above additional costs and thus contributed something towards overhead; and, as a direct consequence, even the lowest cost producers would be unable entirely to cover their overhead costs. In other words, the inability of producers to retire from the market, except permanently, would keep some producers in the market long after the point at which they should have retired under the theory of "perfect competition," and the lowest cost producers, who, under the theory of "perfect competition," should be operating at a level which would enable them to more than cover average costs, would be unable to operate at such level and would be losing a portion of their overhead costs. As the cycle reached its lowest level there would be not only an elimination of high cost producers but a great risk of throwing all of the industry into bankruptcy.

Furthermore, as the upward phase of the cycle began, the producers remaining would not have capacity to meet the demand, and prices would tend to skyrocket. If the upward phase continued long enough, additional capacity might be created, but the time required to build or rehabilitate steel mills and the difficulty of attracting the necessary large capital under such conditions would at least delay for a long time any increase of capacity. These results—periodic alterations between extremely low prices and bankruptcy of most producers, on the one hand, and entirely inadequate capacity with extremely high prices, on the other hand—were certainly not contemplated in developing the theory of "perfect competition." Such results are certainly not socially desirable from any point of view. They are the effect of applying to short run cyclical changes, a theory based on normal adjustments during long term changes.

2. PRICE LEADERSHIP

A common charge against the basing point method is that it facilitates "price leadership". Critics claim that there exists price leadership by a large company or companies and that the prices established by price leaders are enforced by retaliations against competitors for price cutting or for other forms of local initiative in prices. For example, the Federal Trade Commission said in the statement recently submitted to the Temporary National Economic Committee:²⁷

"Free initiative in the sense of trying to get business by offering advantages to the consumer is not only restricted under the basing point system, but is regarded as an offense, subject to the danger of retaliation by the industry.

"If a mill merely follows the price leaders in a generally observed price system, it has relaxed from competition, and is trusting to some more subtle influence to provide its share of the business. Initiative means leading the price in its own area, and leading it down to the level at which the area of the local mill is effectively protected by freight costs against the loss of its profitable business. Initiative in the form of local self determination is seldom, if ever, found today in the steel industry.

"Local initiative is frowned upon by the the leaders of the industry. In 1930, a steel industry leader deplored that 'several months ago price instability was permitted to come into our commercial relations'. Another high steel executive, saying that price cutting kills business, added: 'We have got to be honest.' The potential punishment for any serious attempt to violate the basing point price system is price raiding, that soon brings the rebels to terms. It is vital to an understanding of this situation to make clear the ethics on which it is based."

In answering this charge, certain features of the steel industry should be examined which are independent of the basing point method. First, separate steel producing units are large and diversified as to products. There are only a

²⁷ Exhibit No. 358, p. 7.

few of them by reason of the huge investment required therefor and the restricted areas in which they may be economically operated. This means that each producer in an endeavor to safeguard his own investment will consider the effect of his actions upon the market. Secondly, the large size of individual orders and of individual buyers gives the buyers great bargaining powers and means that buyers can often influence the course of prices. The consequence of these facts is that each seller is apt to meet any price reduction because, owing to the standard quality of the products of the various mills, a failure to meet a lower price would probably result in the seller not sharing at all in the business, with consequent heavy loss to him. In times of good demand, this factor, together with the expected business demands has a tendency to continue prices at the published levels. In times of poor demand, on the other hand, the pressure of high fixed costs and the desirability of maintaining a satisfactory operating rate, result in an effort to obtain additional business through unannounced lower prices in spite of the certainty that such reductions will become known and will be met by other mills. Price increases are governed by somewhat similar considerations. If a producer initiates an increase in prices which is not followed by other producers, he will usually lose heavily. Consequently, although increasing demand and rising costs of raw materials and labor may make a price raise advisable, producers of small or average size may be disposed to wait for the larger producers to initiate the change.

A third consideration is the nature of costs in the steel industry. Price competition in steel is more risky than the classical theory of "perfect competition" contemplated. As shown above, the lowest possible level of prices at which a producer will continue to produce and sell steel is just above the marginal producer's additional production costs for the additional units so produced and sold, and less than his total cost. At this price level, which contributes little or nothing toward overhead, no company can long survive financially. Considering that this fact is well known to steel producers, its influence in discouraging price cutting is obvious.

If the foregoing describes what is meant by "price leadership", such a state of affairs does not originate from or have any relation to the basing point practice, but is the consequence of the above mentioned economic factors.

The relation of the basing point method to price leadership of this character was summarized in the NRA Report, as follows:²⁸

"The basing-point system clearly facilitates the use of the open-price system of price quoting. This system is openly defended as a means of putting competition on a basis which will yield higher prices than would result without it. According to the advocates of the system, this does not mean monopoly prices, but normal competitive prices which can be steadily maintained and will not naturally tend to degenerate into cutthroat competition as discriminatory price cutting without system or order is prone to do, especially if discriminatory prices are secret. Such a condition cannot last, but leads to informal agreements which in turn cannot last, and thus the natural result is an unhealthy alternation between profiteering and destructive warfare. An open-price system could be carried out under any kind of orderly price structure, or even a disorderly one; but it has its fullest effect if each producer knows the delivered prices he has to meet at each purchasing point.

"The basing-point system serves this end particularly well by furnishing a relatively simple formula by which these delivered prices can be calculated. The system tends to restrain cutthroat competition both by informing each producer precisely what prices he has to meet at each consuming point, and by causing changes in prices by any producer to apply to his whole business in his own basing-point area, with the result that he is practically forced to figure on a price which will cover total costs and not disregard his overhead costs as he is likely to do if figuring a special price for a limited area."

The charge of the Federal Trade Commission, however, goes beyond a mere general accusation of price leadership and asserts that price leadership is centralized, and has stifled local initiative in prices. This charge cannot be sustained. The NRA Committee concluded that no one company exercised full leadership:²⁹

"There seems to be no invariable rule as to what companies take the lead. Cases systematically canvassed show too few price changes to afford an adequate basis for generalizing, but general observation indicates that certain producers more or less habitually take the lead in certain products and other producers in other products. There is no consistent price leader for the entire industry."

²⁸ NRA Report, pp. 134-5.

²⁹ NRA Report, p. 139

Basing points for various steel products have sprung up all over the country since the early 1920's. Every steel producer is free to name basing points at his own places of production, and many of them have done so. Such producers can and do lead in the establishment of prices at their own locations. The basing point method, consequently, has not stifled local price initiative, but, on the contrary, supplies it with an effective means of expression.

The forces which have produced price leadership of this kind in the steel industry would probably have done so under any system of orderly selling. Assume, for example, that a uniform f. o. b. mill price system were adopted. No mill could absorb freight, and its sales would be confined to the area in which its mill price plus freight would be lower than the delivered cost of steel from any other mill. Boundaries determined by the relative level of mill prices at different locations would be drawn around each mill, defining the area in which it could sell its products. These boundaries would depend, not upon the absolute level of prices, but upon the relative levels of prices at different locations. A five, ten or twenty dollar increase at every mill would leave the market territory of each unchanged, but would enhance the mill net return of each mill by the full amount of the increase. Under such conditions, price leadership might well flourish, particularly after the lapse of time had defined the normal market territories of the different mills.

The basing point method does not cause price leadership. The economic causes which have produced such price leadership as today exists, if any, would also produce a similar condition under other circumstances and notably under a uniform f. o. b. mill price system. The basing point method has not eliminated local price initiative, for it leaves to the producer at each location the power to decide whether the location of its mill shall be a basing point and what base prices shall be named at such basing point.

3. ELIMINATION OF COMPETITION

(a) *Identical Delivered Prices.*

Charges that the basing point method is a device for eliminating competition are frequent. The Federal Trade Commission is one of the most earnest proponents of this view. For example, the Commission has stated:³⁰

"The statement that the basing-point system is intended to destroy and does destroy all opportunity to buy at other than an identical delivered price regardless of where purchased is emphasized by a study of prices quoted and received by the industry in actual transactions. Private buyers state that there is no price advantage in buying from one steel producer rather than another, since only delivered prices are obtainable, and that these are identical at any given destination, regardless of natural advantages of particular buyers or sellers and regardless of differences in cost of production and delivery."

* * * * *

"This extreme range in prices is the automatic result of a system (an offspring of the Pittsburgh plus system) by which producers reciprocally forego their advantages of location and then set up the specious claim that thus any producer anywhere may 'compete' with every other producer everywhere. The result is price discrimination and a more or less permanent differential treatment of buyers in what would otherwise be a common market. It is economically indefensible as free competition and provocative of social unrest. Yet it is defended by the industry as an 'open price plan', 'open competitive plan' and even as a 'one-price plan', 'similar to that of retail trade'."³¹

The fact that many producers can and do compete in every important market is taken by the Federal Trade Commission as proof that competition does not exist:³²

"As to the monopolistic effect, the witness takes this credit to the system, namely that it 'does not permit any producer to monopolize any piece of business', since the mill 'can go to every place in the United States to compete for whatever business may be offered'. * * * The obvious rejoinder to this defense of the system is:

³⁰ Federal Trade Commission, Report to the President with respect to the Basing-Point System in the Iron and Steel Industry, pp. 4-5. This report, hereinafter cited as the "F. T. C. Report", was rendered in 1934, when the industry was operating under the NRA Code. Many of the charges against the basing point system published in this report have since been reiterated by the Commission.

³¹ F. T. C. Report, p. 14.

³² F. T. C. Report, p. 16.

"(a) Whatever 'competition' may exist under these circumstances is in something other than price.

* * * * * *

"(d) The alleged freedom from monopoly is absurd. The prices are monopolistic in the true sense. The system may give many an opportunity to bid, but the privilege given to the buyer to choose between mills at Birmingham, Chicago, Pittsburgh, and eastern Pennsylvania *at precisely the same delivered price* is the negation of that freedom from monopoly which must be restored if the consumer is to be enabled to return to the market."

These excerpts are taken from the Federal Trade Commission's Report to the President, published in November, 1934. In the pamphlet "Monopoly and Competition in Steel", issued by the Commission during the March, 1939, hearings before the Temporary National Economic Committee, the charges were reiterated:

"To the customer, at his location, there is no difference between the quality and delivered price offered by all the bidders. Occasional variations from this perfect identity are observed, but only during short periods when there was a temporary flurry of price cutting. Such flurries have been an incident of practically all price-fixing systems. They occurred even in the days of signed price agreements in the steel industry.

"On the surface, the producers approach the consumer with a united front. Competition in such crude matters as price and quality has been put aside, and all that seems to remain is a gentlemanly emulation in the art of making friends and influencing people."

A related series of charges have arisen in connection with alleged identical bids. When a government agency or subdivision calls for bids on a certain quantity of steel delivered at a certain place, identical bids may result. This occurred frequently under the Code, and it has also occurred since the NRA was declared unconstitutional.

The Federal Trade Commission has said:³³

"The Federal Government is probably in as good a position to obtain competitive prices as any other buyer. The statutory requirements and administrative safeguards thrown about competitive bidding, the volume of its purchases, its ability to get special rates on land grant railroads, and numerous other factors unite to make of it a buyer which can get competitive prices if any buyer can. Against the price-fixing combination of the steel basing-point system, however, the purchasing agencies of the Federal Government are helpless. They have been reduced to the impotence of having to select the successful bidder by lot because the bids are identical."

In "Monopoly and Competition in Steel", the Commission made the following statement, under the heading "Indicators of Monopoly":

"If identical or close bids on delivered steel are received from mills at different distances from the buyer, there is a presumption of monopoly, unless the facts can be explained by differences in cost of production. The only locations at which the receipt of closely similar bids, from diversely situated mills, can be disregarded as indicators are on the borderlines between producing areas."

Briefly summarized, the argument of the Federal Trade Commission is as follows: Price competition has been eliminated in the steel industry; this is evidenced by the uniformity of delivered prices quoted at each destination, by mills at different distances from such destination; the basing point method is the collusive medium used to bring about such identity of delivered prices. None of these statements is in accord with the facts.

It is not a fact that identical delivered prices are universally charged by all producers, particularly in times of low demand. Price cutting is frequent, and since it is not announced, is not immediately met. If such price cutting continues, it becomes known and other producers, if they wish to be competitive, and to share in the available business, must meet the lower prices. In this way a lower general level of prices may be established, and various producers for a time may again quote identical delivered prices.

Identical quotations probably occur more frequently in sealed bids to governmental bodies than in private sales of steel products. There are two reasons for this: (1) The sealed bid practice required by statute prevents public agencies from bargaining individually with producers as is usually done by private buyers; (2) Sealed bids are eventually published, and although a producer may be willing

³³ F. T. C. Report, p. 5. See also Appendices A & B.

to quote a lower price on a private sale, he is reluctant to do so when he knows that such lower price will soon be published and possibly may have to be made applicable to every similar ton of steel sold by him in the future. Nevertheless, in spite of this tendency, identical bids on governmental contracts are by no means the general rule. An examination of records, covering Federal Government awards for steel products made at Washington, D. C. during 1938 and the first quarter of 1939, indicates that such awards aggregated approximately \$10,550,000, of which about 80% in value went to the lowest bidder and only about 16.5% in value by lot on account of identical bids. The balance of 3.5% was awarded on a basis other than of price.

Furthermore, it is quite erroneous to imply, as does the argument of the Federal Trade Commission, that identity of prices at any given time is necessarily evidence of absence of price competition. Quite the contrary is true. In any competitive market, the price quoted by different producers at any given time for any staple product will naturally tend to be uniform.

In times of good demand, and to some extent at other times, producers at different distances from the destination may quote identical delivered prices. The basing point method is not *per se* the cause of identical bids. It is of course true, whenever the identical delivered price quotations occur at the exact level of published base prices plus freight, that all producers making such quotations have used the basing point method of computation, but identical delivered price quotations do occur at levels lower than the sum of base price and freight from the applicable basing point, such quotations being based upon market prices on like steel products at the destination as reported by sales representatives. Identical delivered price quotations would occur under any free competitive system to the extent that competitors' bids could be estimated, since buyers refuse to pay more to one producer than to another for a staple product. It is even too broad a charge to say that the basing point method *per se* makes identical bids possible by enabling producers to determine competitors' prices, since the same would be true of any open price method.

It is charged by the critics of the steel industry that the quotation of identical delivered prices proves the elimination of competition, because under "perfect competition" such a thing could not often happen, i. e., the different transportation costs would usually cause different delivered prices. This charge assumes that there are only two alternatives, "perfect" competition, and the complete absence of competition, or monopoly. It does not recognize the existence of the vast range of phenomena between theoretical "perfect competition" at one extreme and "perfect monopoly" at the other. Neither identical delivered prices, nor delivered prices of any kind, accord with the theory of "perfect competition" because such theory assumed a freightless market in which neither seller nor buyer needed to be concerned with transportation costs. In the steel industry, both seller and buyer must take into consideration the cost of transportation of steel. This factor produces competition where the steel is to be used, and thus upon a delivered price basis. In turn, such competition tends to result in identical delivered prices. An examination of the importance of the factor of transportation costs, from the point of view of producer and consumer, clearly shows that these tendencies do not result from monopoly and are not symptoms of monopoly.

First let us take the point of view of an individual producer with one integrated mill located, say, at Pittsburgh. This producer has base prices at Pittsburgh for the various products made at his mill. He has located at Pittsburgh primarily because of the low assembly cost of raw materials at Pittsburgh. He has developed a large pig iron and steel ingot capacity because of the need of achieving low costs, and in order to provide an outlet for his steel making capacity he has attempted to secure diversification of product by various rolling and finishing facilities designed to produce a number of different steel products. A large part of his total output is sold within a hundred miles of Pittsburgh, at delivered prices which yield him a mill net return approximately equal to his base prices. But he cannot dispose of his entire tonnage there, partly because many other producers are also located at Pittsburgh, and partly because he makes some products which are not in demand in that area, in order to have the necessary diversification of product. Therefore, he sells part of his output in areas farther from Pittsburgh and nearer to other producing centers, which also have base prices for similar products. On this more distant business he cannot hope to get more than the delivered prices quoted by the nearer mills, and he therefore meets those prices. This forces him to absorb freight, taking a lower mill net return than he realizes on the similar business nearer to Pittsburgh. Because his mill net return is already lower on this business, he is not apt to cut the prices quoted by the nearer mills—

he is usually content to meet such prices of his competitors. Substantial identity of delivered prices results.

Examining now the buyer's side of the market, it is evident that the cost of steel delivered where the buyer wants to use it is the total cost of the steel to such consumer—the only cost in which he is interested. Under a f. o. b. mill price system, the buyer would add freight to the mill price and buy from the source which permitted the lowest delivered cost. Steel products for the most part are in the nature of staple commodities and the product of one mill does not differ substantially from that of another mill. Consequently, it is to be expected that the various mills will compete in meeting the lowest delivered prices to the different buyers, and that the identity of prices which would result from "perfect competition" in a single market at any one time will take the form of identical delivered prices in the steel industry. Critics charge, however, that identical delivered prices do not conform to the expected results under the theory of "perfect competition" because the mill net returns of different producers quoting the same delivered price at one location are not the same. This charge is unrealistic. It has been pointed out that the theory of "perfect competition" assumed a freightless market. It seems obvious that all of the expected results of the theory of "perfect competition" cannot be satisfied in an industry in which delivery costs are an important part of total costs, and in which the producers are geographically separated from each other, while the demand for the product is widely scattered over large areas.

To anticipate the discussion of alternative systems, it may be noted that the uniform f. o. b. mill price system with the elimination of freight absorption, which the Federal Trade Commission proposes to impose by law or mandate, would by definition prevent identical delivered prices. It would do so because the system would inherently prohibit or prevent competition at more than a few destinations at any given time. The areas in which mills might compete would be limited by the relative freight rates from such mills regardless of the relative levels of mill prices. Producers located close together might compete in a comparatively large area to which the freight rates from their mills were the same. In such an area, it is certain that identical prices at each mill would prevail, since otherwise the mill with the lowest price would obtain all the business. Competition between such closely located producers might well be less vigorous than at the present time when other mills also compete in such area. With respect to mills located at a distance from each other, competition would be limited to the boundary between the market territories of such mills. The boundary of each mill's territory for each product, or most products, would be different. Such boundaries would be expected to shift from time to time in accordance with changes in the relative levels of mill prices, but at any given time would embrace only a very few points. Unless such points happened to be important markets for the product in question, by the accident of freight rates, there would be little or no competition between the mills. Thus, while buyers located near a group of producers might be expected to enjoy competition between the local mills, the probability of competition would be reduced, since the number of competing producers would be less than at the present time, and in many areas in which a single producer was located, there would be a virtual monopoly.

The NRA Report thus contrasted the two systems:³⁴

"The outstanding characteristic of the basing-point system is the fact that it puts rival producers on a footing of price equality with each other in all the consuming points over a wide area, instead of merely at the boundary lines of their respective market areas, as under the unqualified mill-base system. It thus increases the number of producers the purchaser has to choose from and who are competing for his business, and widens the areas over which direct competition acts. This fact is hardly open to question."

Although it may be admitted that there are deviations from theoretical "perfect competition" in the steel industry, it does not follow that price competition has been eliminated through the use of the basing point method, or that identical delivered prices are symptomatic of the absence of price competition. Price competition has been, and is, vigorous at all principal consuming points. The basing point method permits many producers to compete on the basis of price, quality, service and other factors at every market location, thus enabling the buyers to induce price concessions by trading one producer's prices against another's. The uniform f. o. b. mill price system would clearly reduce the areas of competition and would by no means be certain to increase the degree of competition in the areas in which it would permit competition. It seems obvious that it would produce less real competition than exists under the present method.

³⁴ "NRA Report, p. 143.

(b) *Where is the Market for Steel?*

The insistence of the Federal Trade Commission that delivered prices and the general identity of such delivered prices at consuming points establish lack of competition, and the further insistence that uniform f. o. b. mill prices should be required, are obviously manifestations of a belief that the market for steel is, or should be at the mill, and is not, or should not be, at the destination. This belief has apparently been derived from the theories of Professor Frank A. Fetter.

Under the theory of "perfect competition," a market was assumed to be at a given place, with many buyers and sellers present, and with the goods to be sold actually present in the market or represented by saleable documents. Professor Fetter in his "Masquerade of Monopoly," after summarizing the history of the older fairs and markets, states:³⁵

"Every real market is a concrete thing, an actual place where traders gather, to which actual goods or certificates of ownership are brought for sale and delivery, where special facilities for trade exist, where buyers and sellers alike have an opportunity to learn and know the amounts and qualities of goods present and the probable intentions of other traders, where traders are forbidden to get apart and trade outside, and where they act independently, without collusion with each other, and without discrimination against any traders on the other side. If we imagine all these conditions to be completely attained we get an idealized picture of a market, and in the degree that these conditions are imperfectly realized, any particular market falls short of the ideal.

"Against one alteration in this ideal picture of markets a warning is especially needed. A market must not be thought of either as the various places or as the whole area to which the goods are taken or delivered after sale."

It would seem equally appropriate to warn against thinking of a market as the place where goods are produced, at which point they cannot be used, but must first be transported to another place.

The differences between prices in the theoretically "perfect" market and delivered prices quoted under the basing point practice has led to the assertion that uniformity of prices in the first is a sign of competition, while in the second it is a sign of monopoly. Thus Professor Fetter, in the March, 1939, hearings before the Temporary National Economic Committee, testified as follows:³⁶

"It is a market in the sense that numerous buyers are there; they are watching each other; they overhear each other, and consequently the fundamental uniformity is a uniformity in the treatment of one's own customers, of the customers of each seller.

"Now there follows from that a secondary uniformity, namely a uniformity in the prices that the different sellers are charging, but I believe this to be less fundamental for the reason that if any one of the sellers thinks that price is too low he temporarily withdraws from the market. He simply continues to quote a somewhat higher price, expecting that the conditions of the market a little later will bring a higher price.

"Therefore, for the time being, he has a reserve valuation that is a little higher than the market price, the going market price, and if he has figured it right the others have sold out at a little lower price and then his stock will sell at the higher price.

"So we can say there is uniformity in a general sense, a tendency toward uniformity, both as between the buyers and as between the prices quoted and received by the sellers, but the second uniformity is a somewhat less accurate one than the other.

"So we have laid down practically the test of a true market by the economists, a price uniformity there. That has no reference whatever to a delivered price, nor is it a uniformity in the price quoted at places outside of the market."

Professor Fetter is here discussing the theoretical "perfect" market, one of the assumed conditions of which is the ability of a seller to retire temporarily from the market if the price is too low. It has been shown that this condition does not prevail in the steel industry, at least in the majority of instances, where large orders are involved. Because of this assumed condition alone (since no other reason is given), Professor Fetter concludes that uniformity of the prices of different sellers is unimportant, although clearly the market would not be competitive unless the prices of most sellers were uniform at any given time. He concludes, on the other hand, that uniformity of each seller's return is essential. This conclusion may perhaps be tested by considering possible situations which

³⁵ F. A. Fetter, "Masquerade of Monopoly," published by Harcourt, Brace & Company, Inc., p. 261.

³⁶ Record of Proceedings of Temporary National Economic Committee, The Bureau of National Affairs, Inc., March 7, 1939, p. 329, (hereinafter cited as "Temporary National Economic Committee Record").

might arise, not in the theoretical "perfect market," which is merely an economic concept, but in the older fairs and markets which were taken as a model. It does not violate credibility to presume that some of the sellers in such markets frequented several markets, at differing distances from the place of production of the goods, and that some transportation costs to the markets were involved. The price at which such a producer would sell in each such market would be determined, not by the difference in transportation costs, but by the competitive price in each such market. Buyers in one market would often pay this producer a different price than buyers in another market, and his return, less transportation costs, would be less. Prices of all sellers at each market would tend to be uniform, but the returns to the particular seller would tend to vary. Of course, the older markets and fairs were not "perfect markets," but merely the nearest approach to the theoretical concept of a "perfect market."

Assuming that Professor Fetter has accurately described a "perfect market" as it was defined by the older economists, he has taken the further step of assuming that that definition is or was intended to be a norm, or standard, to which all industries should conform. The economists who developed this concept did not intend it as a standard, and they were well aware that no "perfect markets" actually existed in the business world even of their day. Thus Professor Fetter's attack upon the basing point method is founded upon an unsupported assumption.

Professor Fetter, continuing his analysis, asserted that the true market for steel is at the mill, and that if the mills were compelled to quote uniform f. o. b. mill prices, without "phantom freight" or freight absorption, "perfect competition" would result. Hence arises the contention of the Federal Trade Commission, that the true market for steel is at the mill, and that the basing point method, by providing a means for quoting delivered prices at each buyer's destination, has destroyed or injured the market and eliminated competition.

Professor Fetter's insistence that the existence of identical delivered prices alone, and in and of itself, establishes monopoly, regardless of other economic considerations, is shown by subsequent statements made during the March, 1939, hearings before the Temporary National Economic Committee. After remarking that it is always difficult to tell whether business men are actually fixing prices, he concluded:³⁷

"* * * If what they are doing is what they would do if they got together and made a formal agreement, then we should treat that as a formal agreement.

"Mr. Hinrichs. Your primary test, Professor, of behavior would be what? Would it be the establishment of a breakeven point for an industry when it is operating at an extremely low percentage of capacity? Would that be the primary test of whether the price were a competitive or a non-competitive price?

"Professor Fetter. No, let's stay here at home; it would be quoting identical delivered prices."

Even if the uniform f. o. b. mill price system were put into operation, the result would not be "perfect competition," since the conditions under which "perfect competition" was expected to occur do not exist in the steel industry. Professor Fetter makes no attempt to explain such differences, or to prove that his theory would work satisfactorily in spite of such differences. Aside from this, however, his conclusion that the market is at the mill must be doubted. If there is any true market for steel, it is at the buyer's door. As transportation costs cannot be disregarded, every buyer, under any price system, will look to the delivered price at his door, and not to the f. o. b. mill price fifty or five hundred miles away. Since delivered prices are the principal concern of the buyers, competition between steel producers naturally takes the form of meeting the others' delivered prices. Certainly, there is no approach to this assumed condition of a true market at the mill.

(c) *High and Inflexible Prices.*

The Federal Trade Commission stated in 1934 that base prices for steel were too high, and that the basing point method made them inflexible. An example of such a contention follows:³⁸

"It is a most significant fact that the steel industry was able to show satisfactory profits for the first 6 months of 1934 without operating to more than half its producing capacity. Profits under such conditions necessarily involve prices per ton which include a high margin over cost of production. It is theoretically possible to fix prices at a point where profits would be shown on a much smaller percentage of capacity. The consuming public would doubtless revolt against the exaction of prices that would provide a profit on an investment of which only

³⁷ Temporary National Economic Committee Record, p. 363.

³⁸ F. T. C. Report to President, p. 37.

a minor percentage is being used. It has borne more or less patiently the burden of prices which provided a profit on an investment of which only 50 percent was used. Recent trade press reports state that some of the younger and stronger independent producers of steel are now contending for a drastic reduction in prices on the theory that it is better business to have a high volume of production on a reduced margin of profit than a small output at a high price. Such a position is consonant with the view of the Commission above expressed and with any logical long-run view of economic recovery."

This contention was repeated by the Federal Trade Commission in 1939 in the statement submitted to the Temporary National Economic Committee:

"Overequipment in the industry, with failure to eliminate the least efficient plants, tends to discourage technological progress, but its chief effect appears to have been to accustom the industry to the idea of a low ratio of production to capacity. The industry has felt entitled to a price level that will allow it to make a profit when operating at less than 40 per cent of capacity, although this required percentage increased with the base price reductions of June, 1938."

The Commission also contended that the price level is so high as to threaten the survival of the capitalist system:

"Thus the advantage or disadvantage of location for many buyers is an artificial one, which may be altered by arbitrary private decree through a change in the basing point. Price competition in the steel industry, during all periods when the system is working, is eliminated. High prices, not in conformity with the law of supply and demand, place unreasonable limitations on use of the material. The effect, when combined with that of similar artificial prices in many other lines of production, is a depressed condition which can be kept from utter collapse only by repeated doses of public subsidy.

* * * * *

"The ability to decide on a price and hold to it regardless of demand, which is the essence of monopoly, is a prime factor in establishing the vicious circle of high prices, restricted production, and reduced employment so widely condemned as 'scarcity economies'. Starting with a price level designed to protect obsolete and unnecessary plants, and therefore having long periods of part-time operation and high overhead, the steel industry has established a habit of low production and high cost that seems to justify high prices. The demand is thereby restricted, and the vicious circle is completed by the continuance of high costs based on restricted output.

"Moreover, in a product like steel which serves as raw material for other products, and for the machines with which other products are made, any unnecessary cost will be multiplied from step to step throughout industry so far as the influence of steel extends. The consumer is burdened with monopoly costs of steel multiplied several fold. * * * The steel industry is a focal center of monopolistic infection which, if not eradicated, may well cause the death of free capitalistic industry in the United States."

These contentions may be summarized as follows: Base prices under the basing point method are high, and the proceeds are used to defray the costs of excess capacity and of wasteful cross-hauling, and to realize unreasonable profits. The contention that the steel industry earns unreasonable or "monopoly" profits is refuted by the steel industry's low rate of return on investment.

The NRA Report, published in 1934, concluded that steel prices had declined relatively to other prices over a long period.³⁹

"* * * It appears that over a term of thirty-three years, steel prices have declined relatively to all prices. While the same could be said of metals and metal products generally, it is still significant that there have been periods of long continued gradual decline, from 1900-1914 and from 1923-1929. This behavior is certainly not unmistakably monopolistic. All these examinations of evidence are instructive, but fall short of proving a conclusive case for or against the existence of monopolistic control. * * *"

The NRA Report contained the following statement relative to profits in the steel industry:⁴⁰

"* * * In 1929, the industry's best year since the War, net income was \$362,000,000—(Compiled from Standard Trade and Securities of May 4, 1934, by G. C. Gamble, Division of Research & Planning, N. R. A., May 8, 1934). These earnings were to be compared with total assets in the general neighborhood of \$4,500,000,000, indicating a return of about 8% in this uniquely prosperous year. The average for the four years 1927-1930 was about \$231,000,000, or

³⁹ NRA Report, pp. 139-40.

⁴⁰ *Ib.*, p. 138.

less than 5% on actual investment. Thus there are not only no monopoly profits at the present time, but no sustained profits of a clearly monopolistic character during the more recent years of prosperity, which might serve as offsets to the losses of the past four years." ⁴¹

Thus, it is demonstrable that the earnings of the steel industry show no signs of excessive profits. In the case of the United States Steel Corporation, the ratio of earnings to total assets, less current liabilities, as reported by its annual reports, has averaged approximately 3.4% during the period from 1920 to 1938, inclusive. For the ten year period ending with 1938, such ratio has been less than 2%.

The correlated statements that the proceeds of high prices are dissipated in the costs of excess capacity, retention of obsolete plants, and wasteful cross-hauling are dealt with at length elsewhere in this memorandum, but the first two may be briefly analyzed and considered at this point. Contrary to the unsupported assertion of the Federal Trade Commission, technological progress has been extremely advanced in the steel industry. In the last dozen years, the development of modern machinery and processes has revolutionized the industry and its products, and, to a high degree, industries and products of industries which are consumers of steel. Such changes necessarily have outmoded some machinery and mills, a large proportion of which have not been operated, until recently, for some time. It seems implicit in the Federal Trade Commission statements that the Commission would contend that such mills and machinery should have been scrapped immediately, their capacities deducted from total capacity figures, and their value written off the assets of their corporate owners. However, such plants were by no means so obsolete as to make it necessary to scrap them, since their full useful life had not been served and their products were, and are, still useful for many purposes, and the cost of retaining rather than scrapping such mills was not appreciable. Thus, the policy of most corporations has been to retain such plants as reserve capacity, and this policy is justified by the fact that the recent sudden increase in demand has already forced into operation many of such older mills, and is requiring others to be brought into operation as rapidly as possible.

The capacity figures of recent years have included the capacity of many such older mills. To say that capacity figures, when compared with production figures during periods of business recession, show excess capacity is to ignore entirely the proper distinction between excess capacity and idle, or reserve capacity. The capacity of the steel industry is not more than sufficient to supply the demand at the height of the business cycle, even with the utilization of what may be termed marginal mills, as is clearly shown by the situation at the present time with mills operating in excess of 90% of ingot capacity. Apparently the Federal Trade Commission would wish to see mill after mill scrapped as demand decreased in a downward phase of the business cycle. It is not entirely clear whether the implication is that this should occur as a voluntary policy of scrapping mills in order of age or degree of obsolescence, or that it should occur as a "natural" economic result. At any rate, the Commission contends that the industry should not have shown a profit during the first six months of 1934 when operating at 40% of capacity, and it may be assumed from the Commission's statement that the industry would have been expected to show a not inconsiderable loss during such period. A continuation of such circumstances for any substantial period of time would, undoubtedly, result in a forced liquidation of many steel producing companies. Thus, it may perhaps be concluded that the Federal Trade Commission expects,

⁴¹ Other qualified commentators have reached the same conclusion. In Daugherty, etc., "Economics of the Iron and Steel Industry," Vol. 1, pp. 408-410, it is stated:

"A survey of the financial operations of the steel industry as it is represented by the integrated companies indicates that it earned but a modest return (net income) on its capitalization even in the 1924 to 1929 era. For those six years the average rate of return on its capitalization was approximately 6.37 per cent. For the years 1931 to 1934 inclusive, losses after charges exceeded net income, with the result that an average net loss of 1.82 per cent on capitalization was experienced. The relatively low earning power of the steel industry is further emphasized when it is compared with groups of miscellaneous manufacturing corporations. From Chart 59 it is apparent that the average annual rate of return on capitalization earned by both the 50 corporations and the larger sample of 2,046 corporations exceeded the rate of return earned by the steel industry in every year of the period covered.

"Further substantiation of the relatively low return on capitalization in the steel industry is to be found in Epstein's *Industrial Profits in the United States*. Epstein shows that of 106 minor industrial groups, the 'Castings and Forgings' industry ranked, in percentage of net income to capitalization, 13th from the lowest both in 1921 and in 1928. This group comprised 99 corporations with an average total capital of \$49.5 millions. Included in this group are foundries, rolling mills, and all kinds of iron and steel plants.

"Explanation of the persistent relatively low rate of earnings in the steel industry is not easily formulated. It is, of course, possible that the steel group has placed a higher valuation on its assets than have corporations in other industries, but the validity of such a surmise cannot be demonstrated. At least, if such inflation of assets exists, it does not appear in such items as goodwill and patents. In none of the years of the period covered did these items exceed 0.3 per cent of total assets."

this to be the means by which capacity utilized at periods of high demand would be eliminated as demand decreased. It is apparently immaterial in the Commission's view that this method would not necessarily eliminate mills in order of degree of obsolescence since many other factors, such as the comparative financial strength of producing companies, would influence the determination of which mills would disappear. Furthermore, the Federal Trade Commission does not suggest the means of increasing capacity in periods of rising demand. The length of time necessary to construct a modern mill, or to rehabilitate a mill abandoned by a bankrupt company, would alone cause a considerable lag of capacity behind demand. The necessary amount of capital and the difficulty of attracting capital under such circumstances would increase this problem. The natural result would be in the direction of the skyrocketing of prices in periods of rising demand. These are all factors which should be, but often are not, considered before assertions are made that total capacity, which includes reserve capacity barely sufficient to supply peak demands, is excessive, and that "obsolete mills," which constitute such reserve capacity, are improperly retained.

There remains for consideration the contention that steel prices are inflexible and that the cause of such inflexibility is the basing point method. Steel prices are relatively stable, or inflexible, as compared to prices of agricultural products and other consumers' goods. This is a characteristic of durable goods industries, which results naturally from relatively inflexible costs, proportionately high overhead costs, inelasticity of demand, and other factors, and, thus, inflexibility is not necessarily an indication of monopolistic or price-fixing tendencies. Steel prices are certainly not entirely inflexible, and no evidence has been brought forward to prove that they should be more flexible or that any advantage to steel consumers or the community as a whole would result from a greater degree of flexibility. In fact, a relative degree of stability is essential from the point of view of the buyer of steel since he must plan his production and his own prices for advanced periods of time. It is not believed that most buyers of steel would wish to be forced into the necessity of dealing in "futures" in steel products by constantly fluctuating market prices, such as are characteristic of the prices of grain and other agricultural products.

The effect of the basing point method upon flexibility of steel prices could only be measured accurately by comparison of present prices with prices which would have existed in the absence of the basing point method. Such alternative prices cannot be known, as it cannot be determined what practice would have developed if the basing point method had not been used, and thus it cannot be estimated what effect this other practice would have had upon prices.

Nevertheless, it is probably correct to assume that some features of the basing point method have contributed to an orderly price structure. For example, the publication of prices probably has a stabilizing influence on the market, and thus has some effect upon actual prices, although this influence is subject to many and powerful counteracting tendencies. The same stabilizing influence would result from any open price system. It is to be noted, however, that any stabilizing influence of the basing point method operates more powerfully to prevent prices from rising than to prevent them from decreasing, since unpublished price reductions are possible, whereas unpublished price increases do not, of course, occur. Finally, if it be assumed, merely for the sake of argument, that the basing point method has had some influence in the retention of older mills as reserve capacity, it then follows that the basing point method has prevented large increases in prices in periods of high demand, such as at the present time.

4. UNDUE CONCENTRATION OF PRODUCTION FACILITIES

Critics of the basing point practice have asserted that it has caused undue concentration of production facilities, particularly at Pittsburgh, but also at other basing points. They have also contended that the basing point practice has resulted in "uneconomic" location of producing mills. This may be taken as the same criticism differently expressed. The criticism continues to the effect that producing mills should be scattered over the country and assumes that steel mills would be so scattered had it not been for the basing point practice. The following passage from the statement submitted by the Federal Trade Commission to the Temporary National Economic Committee is an example:

"Sound competition would be efficient for the nation because it would reduce wasteful cross hauling, the cost of which the nation must bear. It would promote decentralized location of mills, tending to favor the growth of numerous scattered mills close to customers, or in the shortest line between customer and raw material, an important item in terms of economic stability and of national defense."

Under the Pittsburgh Plus pricing method, the mills at Pittsburgh sold steel products all over the country at delivered prices equal to the Pittsburgh base price, plus freight from Pittsburgh, thus realizing net mill returns equal to their base prices. Other mills, in theory, met those delivered prices. Consequently, the mills at Pittsburgh enjoyed a nation-wide market with normally even mill net returns. Some critics have concluded that this supposed advantage resulting from Pittsburgh Plus was the cause of the location of the many large producing mills at Pittsburgh. They have also concluded that the location of large steel producing capacities at other basing points has resulted from the basing point practice.

An accurate appraisal of this criticism would require comparison of the existing facilities at Pittsburgh and other large basing points with those which would exist there if the Pittsburgh Plus and basing point pricing methods had not been in use. Such comparison would require an examination of the extent to which any pricing practice could affect the location of production facilities, what practice would have been followed in the absence of Pittsburgh Plus and the basing point method and what effect such different practice would have had upon the location of production facilities. There is no way by which the present steel producing facilities can be compared scientifically with those which would have existed under other conditions. However, it can be pointed out that in many respects the existence of the Pittsburgh Plus method would have a natural tendency to encourage location of mills outside of rather than at Pittsburgh.

Under the Pittsburgh Plus method delivered prices all over the country were higher than the Pittsburgh base price by the amount of the freight from Pittsburgh. The mill located away from Pittsburgh realized a higher mill net return on sales in its immediate territory than Pittsburgh mills. For example, a mill at Chicago, or other producing points, received a delivered price on sales at such point higher than the Pittsburgh base price by the amount of the freight from Pittsburgh to such point; it retained this advantage roughly on sales in directions away from Pittsburgh;⁴² and it retained an advantage over Pittsburgh mills in smaller amounts in sales toward Pittsburgh up to points half-way between Pittsburgh and the location of the mill. This encouraged the location of mills at Chicago, Buffalo, Bethlehem, Sparrows Point, Cleveland, Birmingham, etc., and made possible the constant expansion of their facilities. The price differentials at basing points outside of Pittsburgh during the Pittsburgh Plus period and subsequently had the same effect.

Such statistics as are available indicate that Pittsburgh declined in relative importance as a producing center during the Pittsburgh Plus period and subsequently.

In Chapter VIII of "The Economics of the Iron and Steel Industry," there is an incomplete study of the relative capacities in the Pittsburgh district and at other locations during the years from 1900 to 1934. The author concluded that Pittsburgh declined relatively in pig iron capacity during that period:⁴³

"(1) Pennsylvania throughout the period 1900-1934 suffered a gradual decline in its relative importance as an iron-producing state. Inspection of the curve shows that, in general, in years when total production of pig iron of the country declined, e. g., 1921, 1924, 1927, Pennsylvania's percentage of total production decreased. The subsequent increases in the share of total output in years of revival of total production were insufficient to maintain the relative position of Pennsylvania. Decline in the output of the smaller furnaces in years of falling prices and the gradual abandonment of such furnaces, together with an increase in the number of larger stacks in the regions west of Pennsylvania, are behind the changes noted.

"(2) In sharp contrast to the situation in Pennsylvania were the developments in Ohio and in Indiana-Michigan. The upward slope of the curves shows strikingly the tendency for pig-iron production to move westward. For most of the period the gains made in Indiana-Michigan represent developments at Gary, Ind. In Ohio advances made in the Cleveland and Youngstown Valley districts offset the declining output of the smaller furnaces in central Ohio.

* * * * *

"(4) The sharp decline in total pig-iron production subsequent to 1930 was accompanied by striking changes in the relative positions of Ohio and Pennsylvania. In 1932, for the first time in the entire period, production of pig-iron in Ohio exceeded the output of Pennsylvania furnaces."

⁴² It was reduced to some extent by the difference between long and short haul rail freight rates.

⁴³ Daugherty, etc., "Economics of the Iron and Steel Industry," Vol. I, pp. 334-337.

This writer found the same trend in the capacity for the production of ingots and rolled steel products:⁴⁴

"Chart 38 presents similar curves for steel ingots and castings, but the lack of comparable data has made it necessary to omit Alabama. On the other hand, it has been possible to plot separate curves for Michigan and for Indiana. In general, where the data are for identical regions, the curves show much the same slopes as those already noted for pig-iron production and capacity. In Illinois, however, the percentage of ingot and castings capacity increased sharply after 1929, but at the same time the percentage of production of ingots and castings declined appreciably. In this instance, the behavior of the percentage curves for capacity resulted, in part at least, from the erection by one of the large steel corporations of 14 basic open-hearth furnaces with a total annual capacity of more than 1,500,000 tons. * * *

"The relative importance of the several regions changes but little when measured in terms of the production of finished hot-rolled products. Nor do these regions exhibit any important difference in trends over the period covered. Perhaps of chief significance is the fact that the decline in the relative importance of Pennsylvania has not been equally sharp in each of the stages of iron and steel production. Throughout the period, Pennsylvania has maintained first place in the production of finished steel products. (It will be recalled that Ohio surpassed Pennsylvania in 1932 in the production of both pig iron and ingots and castings.) Inspection of the curves in Chart 39, however, yields no indication that the downward drift in the percentage of finished steel production will not continue. Since 1920 Pennsylvania rolling mills have improved their relative position only in 1926 and in 1929, years of expanding production for the entire industry. In 1933 and in 1934, total production of the country increased, but Pennsylvania plants continued to account for slightly smaller percentages of total output. The development of the continuous rolling mill and the erection of such mills in regions nearer to the automobile plants, which are the important consumers of sheet and strip steel, may result in further decline in Pennsylvania's relative importance as an iron- and steel-producing state."

The Federal Trade Commission's assertion that the existence of basing points has caused the location of mills at such points may be countered with the fact that, as a matter of record, with certain minor exceptions,⁴⁵ the naming of a basing point has followed rather than preceded the installation of production facilities at such points. This is the normal course of development of the basing point method. The NRA report stated:

"In the growth of the Chicago District's productive capacity, we find early signs of the natural basing point development, whereby when capacity in a district increases to the point where it begins to require all its own market and to press for more, it breaks away from the 'mother' basing point, stands on its own feet and quotes its own base prices which are lower than prices delivered from distant producing points." ⁴⁶

In fact, the location of production facilities has been due to the fundamental economic traits of the steel industry which have already been set forth, rather than to any pricing system. The primary factor has been low assembly costs of raw materials. Large steel producing capacities would be expected in the Pittsburgh district independently of any pricing method because of the location at Pittsburgh in relation to the raw materials necessary in the production of steel. Pittsburgh is near deposits of the best coking coal, and large supplies of iron ore can be brought to it cheaply by water from the Lake Superior district with only short rail hauls. Limestone is also readily obtainable. This factor was the cause of the rise of Pittsburgh as a steel producing center long before the Pittsburgh Plus pricing method grew up. This consideration also caused the location of mills at other large producing centers and has been one of the principal determining factors in limiting the location of steel mills to a comparatively few districts.⁴⁷

While nearness to markets is also an important factor, which had an influence upon the location of existing mills, it cannot be the determining factor in the location of a steel mill. The Federal Trade Commission's theory seems to be that steel mills should be located near the markets for steel products—in effect that they should be scattered over the country wherever there is a market regardless of other considerations. Such location might result in lower transportation costs

⁴⁴ *Id.*, pp. 337-339.

⁴⁵ Certain Gulf Ports were named basing points, although there was little capacity located near them, in order to enable domestic mills to meet foreign competition. The effect has not been the installation of producing facilities at such points.

⁴⁶ NRA Report, p. 39.

⁴⁷ See the passage from the NRA Report quoted on p. 45, *supra*.

for finished steel products but no evidence is presented that this would offset the disadvantage which such scattered mills would have in the transportation costs of assembling more than four tons of raw materials for every ton of finished steel.

Furthermore, there is an entire disregard of other costs which would be an inevitable consequence of an application of the Commission's theory. Concentration of steel producing facilities in a few districts is also due to the economies of integration. The economies of vertical integration necessitate the location of steel producing operations near the blast furnaces and rolling mill operations near the steel producing facilities. A modern integrated mill inherently has large capacities and its products must be distributed to many markets. The demands of large markets are often limited to one or a few products. An integrated mill cannot economically limit its production to one or two products but must have a wide diversification of products, the demand for which is geographically scattered.

Thus, a location cannot justly be called "uneconomic" unless some other location can be shown to be better. The benefits of proximity to a large consuming market may be offset by high assembly costs. A large steel mill cannot limit its operations to the few products for which there might be a local demand, and the small scale operations of a smaller mill would undoubtedly result in high operating costs with no saving to its customers. The location of mills upon the sole basis of nearness to a market would always subject them to local and seasonal variations in demand, and might well be disastrous if the market should subsequently move away because of labor difficulties or other causes. Concentration of facilities necessarily results from the nature of the steel industry, and present locations of mills are based upon a proper consideration of the economic factors involved. They cannot be attributed to any pricing method.

5. EXCESS CAPACITY

Critics of the basing point method have stated that it causes "excess capacity". For example, the statement recently submitted to the Temporary National Economic Committee by the Federal Trade Commission contained the following passage:⁴⁸

"The protection of obsolete plants under the umbrella, by retaining excess capacity in the industry, impairs the incentive to build new and more efficient plants or to secure a better location."

What is meant by "excess capacity"? What factors should be considered in determining capacity? Should theoretical output be based upon a 24 hours-a-day operation, or on some lesser number of hours? Should one deduct for idle time required by repairs, labor shortage, etc.? Steel capacity figures are generally taken from the "Directory of the Iron and Steel Works of the United States and Canada", published by the American Iron and Steel Institute, which has adopted the following formula:

"The figures of capacity desired are your practical capacity, that is, an output which you feel can be attained under conditions of maximum demand, assuming adequate transportation service and no serious labor shortage. You are especially requested to base your figures on your usual normal number of operating turns per week; and to make due allowance for such holidays as you customarily observe, as well as for average time lost for repairs, relining, and for rebuilding of furnaces."

This definition, among others, is quoted by Dr. Willard L. Thorp, now associated with the Department of Commerce in connection with its work for the Temporary National Economic Committee, in a study of the relation of overcapacity to business depressions, entitled "The Problem of Overcapacity."⁴⁹

The criticism of the Federal Trade Commission infers that steel capacity has been accurately measured against a correct standard and has been found to be excessive. But Dr. Thorp, after noting that unused or idle capacity in the steel industry is necessary and inevitable, denies that it is possible at present to formulate a test of "excess" capacity. He says:

"There is somewhere a degree of excess which, under the techniques of production and the shifts arising in demand, might be considered necessary, a degree which is probably taken into practical financial account through charges for depreciation and obsolescence, and through various other forms of liquidation of capital. * * * A study of excess capacity as a cause of depression would involve, then, a knowledge of its fluctuations above and below the line of necessary excess. Such knowledge is only in the smallest fraction available today."

⁴⁸ Exhibit No. 358, p. 7.

⁴⁹ Contained in "Economic Essays in Honor of Wesley Clair Mitchell", pp. 477-495. All references to Dr. Thorp's views contained in this section are from this study, and quotations are made by permission of the Columbia University Press.

The Federal Trade Commission has probably based its conclusion upon the fact that the industry during most of the past ten years has operated at a low per cent of its reported capacity. This is a sign of idle, but not necessarily of excess capacity.

Dr. Thorp lists the following as being among the causes of idle capacity:

1. Seasonal variations in demand. For example, telephone, electric light and power industries, docks, wharves and ice cream all experience sharp seasonal fluctuations in demand. (This applies to some steel products, such as cotton bale ties, automobile sheets, tin plate, etc.)⁵⁰

2. Seasonal variations in supply. Canning factories, brick yards and logging camps are examples of industries which must maintain facilities to deal with one busy season, and which operate at a low rate during the rest of the year. (Through storage of raw materials, the steel industry largely avoids seasonal fluctuations in supply.)

3. Reduced demand, resulting from technological changes, substitute products, legal prohibitions, fashion changes, etc. (The steel industry over the last ten years has experienced a reduced demand for heavy products, such as structurals and rails, partly compensated by an increased demand for light, flat rolled products.)

4. Style changes. In certain industries style changes require new machinery, while the old machinery is retained because it is not worn out. This results in unused capacity. (In the steel industry style changes occur in finished articles made from steel products, and such changes are closely inter-related to technological improvements in the quality of steel products. The one piece steel tops, deeply recessed steel panels, and sharply rounded, high crowned one piece fenders of modern automobiles, which may be considered in part style changes, were made possible by the greatly improved steel sheets produced on modern continuous rolling mills. The demand for the improved sheets required the installation of continuous rolling mills, but the old hand mills were retained because their product was still satisfactory for other purposes, and the capacity of the hand mills was useful as a reserve.)

5. Hand-to-mouth buying. In industries in which the carrying of stocks of their products is risky because of style changes, adequate capacity must be maintained to meet sudden demand. (Most steel products are made to meet varying customers' requirements, but this furnishes no clear basis on which to charge that excess capacity results.)

6. Technical advances and obsolescence. New inventions and improvements may increase the capacity of old facilities, and new equipment may supplant older facilities which are still usable but not as efficient. Nevertheless, the old machinery which has not served its full useful life is held as reserve capacity and is usually included in total capacity figures. (The capacity figures assembled by the American Iron & Steel Institute include the capacity of various so-called hand mills, which have been largely outmoded by the modern continuous mills. Many such old mills were retained as reserve capacity, rather than scrapped, because they had not served their full useful life. The sudden increase in demand in the fall of 1939 has forced into operation all or most of this formerly idle capacity, and the existence of these mills has been of inestimable importance in satisfying customer requirements. It has also probably been a factor in preventing any sudden change in prices during this marked upturn in the business cycle.)

7. Planning ahead. After years of steady growth in a given industry's facilities, new plants will ordinarily be built to accommodate expected future growth, which in the interim may result in some temporary overcapacity. (This probably is true to some extent in the steel industry, in which the building of a plant is a major engineering job. Additions to already existing steel plants are not easy to design, and when built are not apt to be satisfactory.)

8. Competition. The competitive scheme requires that there be at least two sellers between whom the buyer can choose. As a result, there must be some duplication of capacity. (Some duplication of capacity results from the desire not only to earn a profit but also to insure against deeper losses for the time being. For example; following the recent shift in demand from heavy steel products to light, flat-rolled products, many companies installed continuous sheet and strip mills, as a long-range program, not only because they thought such facilities could eventually be profitably employed, but also because they felt they had to do so in order to stay in the market. This probably has resulted in some temporary overcapacity for sheets and strip.)

Since Dr. Thorp was examining the effect of capacities in producing depressions, he did not list the business cycle among the causes of idle capacity. Demand

⁵⁰ Parenthetical statements are not derived from Dr. Thorp's essay.

fluctuates enormously through the different phases of the business cycle, particularly in the durable goods industries, as clearly appears from the figures cited *supra*. Naturally, if the industry has facilities to supply the peak or near-peak demand, it will have idle capacity during the periods of lower demand. Even if excess capacity were proven, it would be extremely difficult to establish that any part of it could properly be attributed to the basing point practice.

The criticism of the Federal Trade Commission may, however, be construed to mean that the basing point method maintains prices at higher than competitive levels, thus attracting too many producers and causing the installation of excess capacity. However, the price of steel over a long period has declined, relatively to other prices, and the profits of the steel industry have been considerably lower than the average among industries.

The attack on "excess capacity" has received an emphasis out of proportion to its real significance. Dr. Thorp says, " * * * the few indicators which have been gathered together here fail to provide any final affirmative evidence to support the belief that unusual increases in productive capacity did much to bring the recession."

Dr. Thorp notes, for example, that output during the years 1925 to 1929 increased faster than capacity. The NRA Report made the following comment:⁵¹

"So far as the installing of new productive capacity is an indication, it is significant to note that the recent study made by the Brookings Institution: 'America's Capacity to Produce', pp. 251-270, finds no evidence that the percentage of excess capacity in the industry had shown any long-run tendency to increase prior to the present depression, but distinctly the opposite, especially if the figures are carried back to 1898-1900."

6. ALLEGED PRICE DISCRIMINATION

Steel mills, in general, realize their highest mill net returns on sales to buyers in the territory nearest to the mills, and, after passing beyond their natural market territories, progressively lower mill net returns as the distances to the customers increase. As before mentioned, this variation in mill net returns is often critically, although inaccurately, characterized as "price discrimination," and because it follows roughly a geographic pattern, it is sometimes called "geographical price discrimination."

The basing point method is often criticized on the basis of such a difference in mill net returns. In a "perfect market", the argument runs, discrimination of this character would not take place. A seller would then either meet the price determined by supply and demand and sell in the market at that price, or he would demand a higher price and, failing to obtain it, would withdraw from active participation in the market. But, the critics argue, he would not have two prices for the same product at the same time and thus would not discriminate in price between different buyers (ignoring quantity discounts, possible differences in handling costs, etc., which would require some classification of buyers). By contrast, according to such commentators, the variable mill net returns realized by a steel mill on business in different areas are discriminatory, and therefore non-competitive. The fallacies in this theory generally, and with reference to the steel industry in particular, have been discussed elsewhere in this study. The causes of variations in mill net returns may be considered here.

(a) So-called "Phantom Freight."

Critics of the steel industry contend that producers charge "phantom freight" in two types of situations, first, in certain sales by non-basing point mills, and second, on shipments made by a medium of transportation cheaper than that which is used in calculating the delivered prices. These may be considered separately.⁵²

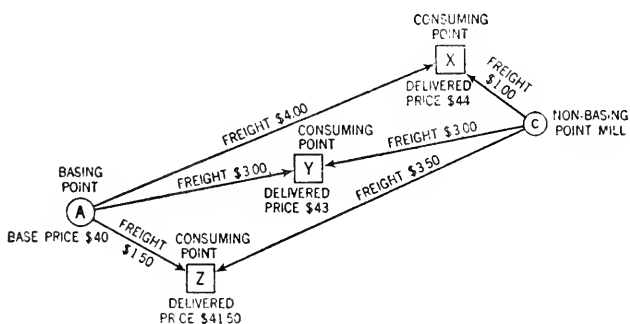
(1) *Non-Basing Point Mill*.—Referring to the foregoing Diagram 3, which is here reproduced, A and B are basing points, and c is a non-basing point mill. A is the applicable basing point. The delivered price at X, a point of consumption, is \$44 (\$40 base price at A, plus \$4 freight from A to X). The mill at c, a non-basing point mill, will meet this delivered price at X, paying only \$3 freight and realizing a mill net return of \$41, or \$1 more than the base price at A. This \$1 is called by the critics "phantom freight", because, it is said, the mill at c charges \$4 for freight, while it pays only \$3. Of course, this criticism is inaccurate. The mill at c has not charged any freight, "phantom" or otherwise, but has merely named a delivered price of \$44, equal to that of the competitive mill at A.

⁵¹ NRA Report, p. 67.

⁵² See Diagram 3, p. 35.

THE BASING POINT METHOD

Diagram 10: Mill Net Returns of Non-Basing Point Mill.



MILL NET RETURNS TO MILL AT C			
CONSUMING POINT	FREIGHT ADDED	FREIGHT PAID	MILL NET RETURN
X	\$4.00	\$1.00	\$43.00
Y	\$3.00	\$3.00	\$40.00
Z	\$1.50	\$3.50	\$38.00

DIAGRAM 10

THE BASING POINT METHOD

Diagram 11. Freight Rates from Pittsburgh to Certain Important Consuming Centers.

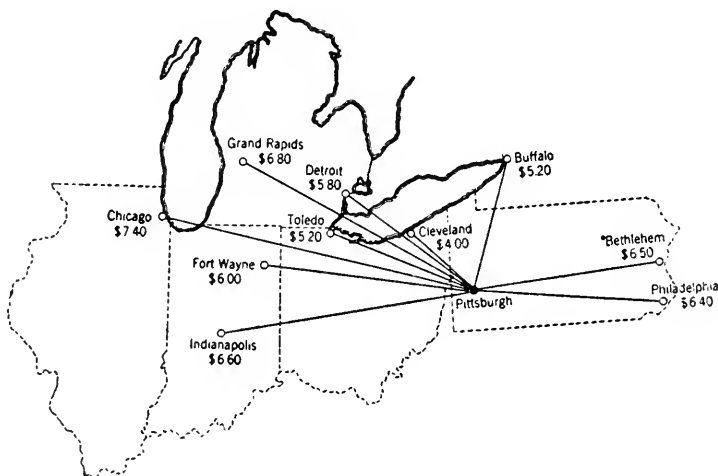


DIAGRAM 11

Diagram 10 shows a more complex picture of the mill net returns of a non-basing point mill. A is a basing point with a base price of \$40, and c is a non-basing point mill. X, Y and Z are points of consumption. The delivered price at X will be \$44, and the mill at c will meet that price realizing a mill net return of \$44 minus \$1 actual freight, or \$43. This difference of \$3 between the freight rates from A to X, and from c to X, is characterized by such critics as "phantom freight." In fact, however, the mill at c is only naming a delivered price which will enable it to realize the proper advantage resulting from its superior geographical location with respect to a sale at X. At Y the delivered price will be \$43, and the mill at c will pay exactly as much freight as is used in determining its delivered price, realizing a mill net return equal to the base price of the basing point mill at A, or \$40. The delivered price at Z will be \$41.50, and the mill at c will pay \$3.50 freight, realizing a mill net return of \$38.00. On this sale the mill at c is said to be absorbing \$2 freight. Actually, it is merely meeting the competitive price at Z.

Summarizing, the non-basing point mill at c realizes its highest mill net returns on sales to the customers nearest it, at X for example, and progressively lower mill net returns as the distance to the customer increases, so long as it is selling toward the basing point. On sales in directions away from the basing point, it will continue to realize mill net returns which such critics argue embrace "phantom freight", until it begins to sell in territory nearer freightwise to some other basing point.

This practice of a non-basing point mill of merely meeting delivered prices of basing point mills when the freight rate from the non-basing point mill is lower is said to be non-competitive and an evidence of monopoly. The objections probably arise from two sources. The first is a survival of the criticisms which developed during the long Pittsburgh Plus period, when almost every mill calculated delivered prices by adding the freight from Pittsburgh to the destination. Diagram 11 shows roughly the substantial amounts of freight charges from Pittsburgh to certain important consuming centers. This diagram is based upon existing freight rates, which have not changed greatly since 1922. During much of the Pittsburgh Plus period, however, the freight rates were lower, the major increases coming during and immediately after the last World War. It should be noted, moreover, that price differentials over Pittsburgh at outlying basing points were a natural part of the development of the basing point practice. New mills needed higher prices in order to cover their higher costs, and to provide capital funds for expanding their facilities. Pittsburgh, on the other hand, stood in need of wide market territories to provide an outlet for its capacity, and it was natural for the price there to be lower. The conditions illustrated by Diagram 11, however, have not existed for more than 15 years. Since 1920, the number of basing points has steadily increased, and the basis of this criticism has correspondingly diminished.

A second source of misunderstanding about this practice of non-basing point mills is the idea that it is made possible by some act of monopoly. Professor Fetter, for example, in his testimony at the March, 1939 hearings before the T. N. E. C., explained the origin of "phantom freight" roughly as follows: First there are two widely separated cities, with a number of producers at each. The producers at each city compete with each other in the local market, and the market price at each city determines what part of the area between the cities will buy from each group of producers. Now, he says, the producers at one city may merge. There will be no competition in that city, and the merged concern will simply adopt the market price at the other city, (i. e., use that other city as a basing point) and collect "phantom freight" on sales in that part of the surrounding territory which is nearer to it than to the basing point. The merged concern thus would realize its highest mill net returns on sales in the area immediately around its mill and progressively lower mill net returns as it sold toward the other market.⁵³

While Professor Fetter did not state that he was describing actual occurrences in the steel industry, his language might have been so understood. In any case, this is not a true story of the steel industry. As steel producing capacity was installed at points outside of Pittsburgh, the distant mills confined themselves to meeting Pittsburgh Plus prices instead of setting up prices of their own. They could easily do so as long as the demand in their locality exceeded the local production, and in so doing they were only taking advantage of their superior geographical location. No record has been found of any steel producer originating a basing point at another producer's mill, or of an existing basing point being eliminated.

⁵³ Temporary National Economic Committee Record, pp. 332-3.

In further analyzing this criticism, separate consideration may be given to (i) mills far from a basing point, and (ii) mills near a basing point.

(i) *Mills Far From a Basing Point*.—As has been pointed out, mills at a considerable distance from a basing point have a freight advantage over other mills in selling to buyers in the territory around their mills. They behave competitively and naturally when they charge their customers a price which realizes that advantage. They are merely reaping the benefit of their superior geographical location, as compared with competitive steel mills. They can scarcely be expected to offer lower prices than their nearest competitors until further competition forces them to do so. The advantage of a non-basing point mill cannot be taken from it except by the erection of another mill near it or between it and its best markets. It is interesting to note that a representative of the Federal Trade Commission expressed this same opinion before the Temporary National Economic Committee.⁵⁴

"I would say that under our competitive system, a man who is particularly well located as regards his raw materials, and his market, will charge, and under our system is expected to charge, a good fat profit until somebody else puts in a plant and competes with him."

The NRA Report also supports this position:⁵⁵

"Akin to the preceding point is the criticism, on the grounds of justice, of the relatively high prices paid by customers located close to mills which do not happen to be basing points. For such customers, located near a non-basing point mill in the direction of its governing basing point, the less freight cost actually incurred, the higher price is charged.

"It is hardly necessary to point out that this criticism depends on the assumption that the customer has a right to a price based on the freight service he actually uses rather than the higher freight for the longer haul from the more distant basing point—a haul which he does not use. It may seem strange to call this an assumption, since to many it is a self-evident truth. Yet it will repay some examination. In the utmost strictness, the customer is not literally paying for the freight haulage which he does not use; he is merely paying a price for steel which the nearby producer is enabled to charge through the protection afforded him by the barrier of a long freight haul from his competitor's mill."

At a later point in this NRA Report, it is said:⁵⁶

"As for the producer who is located at some distance from any competitor, there is no reason why he should, under competition, be compelled to charge a base price to his nearest customers and add the actual freight to all customers at a greater distance. On the principle formulated above, that he is governed by the best alternative offer which is open to his customer, it is quite likely that the farther he goes from his own mill, the lower is the price at which his customers can get goods from some rival, because the customers are nearer to the rival's mill. Thus an isolated producer may start immediately from the door of his mill to charge his customers the freight which his competitor has to pay, instead of the freight he has to pay himself, and as a result he may charge his nearer customers a higher price than his more distant ones, from the very start, at least in the direction in which the mills of his most active competitors lie."

These excerpts support the propriety of a non-basing point producer realizing the benefits of his geographical location in selling to customers near his mill.

A still stronger case is presented by the steel mill which needs high prices in its most profitable territory in order to survive. A new producer, or any producer in a period of low demand, may require all the profit it can realize from sales to its nearest customers in order to cover its total costs. This is particularly true when the producer, in order to obtain an economical rate of operation, must sell a large part of its output in more distant markets, paying large amounts of freight to reach such markets. The NRA Report recognized this fact:⁵⁷

"In an extreme case, the producer who charges his nearby customers the highest prices may not be able to afford to charge them any less, despite the apparent contradiction involved in his voluntarily making lower prices to other customers who are farther off, that is, he may conceivably need all the benefit he can get from the utmost discrimination which his market situation permits, in order to cover his total costs at all. Assuming such a case to exist, if this producer were not allowed to charge high prices to a nearby customer, he would merely be forced out of production, and the customer would gain nothing in

⁵⁴ Mr. Eugene W. Burr, in the March 1939 hearings before the Temporary National Economic Committee—Temporary National Economic Committee Record, p. 318.

⁵⁵ NRA Report, pp. 71-2.

⁵⁶ NRA Report, p. 127.

⁵⁷ NRA Report, pp. 72-3.

the way of lower prices, but would lose the convenience of being able to get service from a nearby source. This extreme case is not very likely to be found in practice, but it is possible.

"If a plant of this character becomes a basing point, the chances are that it will automatically settle the question by quoting prices not much lower than the prices it now receives from its nearby customers. And plants which are in a stronger position are likely to be able to afford the luxury of putting their nearby customers on a more favorable basis by quoting basing point prices more nearly comparable with those in force at other basing points. Thus, if the customers are discriminated against simply because the producer near whom they are located is a weak producer, the discrimination will not be removed; but if they are discriminated against arbitrarily by the system, then the establishment of new basing points will be likely to remedy the case."

THE BASING POINT METHOD

Diagram 12: Effect of Differential between Prices at Basing Points.

In selling at [X] or any point up to the Boundary O-O of its Market Territory, (C) realizes its Base Price.
In selling at [Y], (C) realizes less than its Base Price, although it adds more Freight than it pays.

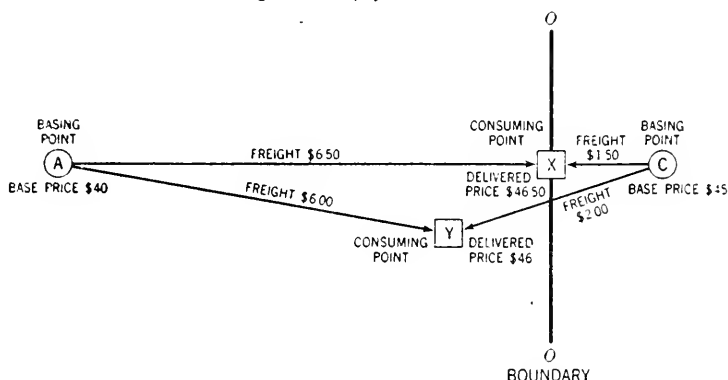


DIAGRAM 12

Even if a producer were compelled by some outside force to name a basing point at his mill, he probably would minimize the effect of the change by quoting a high base price. Diagram 12 illustrates the technical consequences of such a change. A has long been a basing point, and C represents the location of a mill which has only recently announced base prices at this point. The base price at A is and has been \$40. The mill at C has been meeting delivered prices calculated by reference to A, and consequently has been realizing its highest mill net returns on sales in the territory closest to it. Delivered prices have been highest in the territory farthest from A, no matter how near the purchasers were to C. Upon announcing base prices at C, the mill at C still needs the highest mill net returns it can get, and accordingly it announces a base price of \$45 at C. The line O-O represents the boundary of the natural market territories of the basing points as determined by these prices, i.e., the territory in which each mill can quote a delivered price equal to its own base price plus freight. On sales at any point on its own side of the line O-O the mill at C will now realize a mill net return equal to its base price of \$45. But in selling past the line O-O, for example, at Y, the mill at C could still be accused by such critics of adding more freight than it pays on the theory that C is adopting A's base price. In fact, however, C is merely meeting A's delivered price at Y and thus taking advantage of its own superior geographical location. The same accusation could be made of sales by

the mill at C in all of the territory on A's side of the line up to the point where freight rates from A and C are equal.

When the mill at C names a base price of \$45, the effect is to lower prices slightly on its side of the line *O-O*, while on sales beyond that line, neither the previous level of delivered prices nor C's mill net returns will be changed.

Thus, the previously existing scale of delivered prices in the territory around the non-basing point mill can and undoubtedly will remain about the same even though the mill becomes a basing point. The possibility of a non-basing point mill realizing mill net returns higher than those obtained by competitive mills at basing points is not due to the absence of a basing point, but to a geographical advantage over these other mills—an advantage which a representative of the Federal Trade Commission, in the excerpt quoted above, has said should be retained by the well located mill until the erection of competing facilities near its location takes that advantage away.

The accuracy of the assumption made in the NRA Report that a mill in a strong position, upon becoming a basing point, would quote substantially lower prices to its nearby customers, is open to question. It would appear much more likely that an isolated producer, whether strong or weak, would quote delivered prices which would enable it to realize its freight advantage as against other competitive mills. If it did not, then, as the NRA Report says in another passage, it would be following some non-competitive principle. Of course, it is possible that other competitive factors would make it advisable for an isolated producer to establish a base price and substantially to lower delivered prices in its local territory. An example of such a factor would be the desire to enable its local fabricators to sell in more distant markets. But the fact remains that the strong as well as the weak producers are behaving competitively and naturally when they charge prices which reflect their freight advantage over other producers on sales in their local territories.

Thus, the behavior of non-basing mills, erroneously described as realizing "phantom freight", is not to be construed as the critics construe it—as a symbol of the absence of competition. It is, on the contrary, truly competitive behavior, but of a type which varies from the assumptions of "perfect competition", because marketing conditions in the steel industry are more complex than those which were assumed in developing the concept of a "perfect market".

The following statement from the NRA Report indicates an appreciation of the true situation:

"* * * one competitor's price to customers is governed or limited by the price charged to these same customers by the rival whose price the first competitor has to meet if he is to sell goods to these particular customers. If the rival's price includes the rival's freight costs, then the price which the first competitor has to make includes his rival's freight charges rather than his own. If his own freight costs happen to be lower, and if he gives the customer the benefit, he is giving the customer a lower price than competition forces him to give. In other words, he is following some sort of a non-competitive principle rather than a competitive one."³⁸

(ii) *Mills Near a Basing Point*.—The above discussion has concerned mills located at a considerable distance from a basing point. Mills located within a 25 or 50 mile radius of a basing point city are generally considered basing points mills. However, some mills may receive delivered prices which yield a mill net return higher than their base prices, due to their being located in the industrial area of a basing point city, but not within the switching limits of such city. Diagram 13 shows what might be called a typical situation. It was suggested by the location of mills in the Pittsburgh area, although it does not purport to be an accurate representation of that area. The irregular rectangular area near the center of the chart marks the switching limits of a basing point city. A, B, C, D, E, F, G and H are mills, all located within a 50 mile airline radius of the basing point city, and X is a near-by consuming point. All of the mills announce base prices at the basing point city and quote delivered prices based upon such basing point. On sales to customers at X, only the single mill E, which is inside the switching limits of the basing point city would realize the exact base price. Any other of the mills which sell products at X, would in the eyes of the critics realize "phantom freight" or absorb freight, depending upon whether freightwise they were farther from or nearer to X than is the mill at the basing point city. Since freight rates on steel products for short hauls are comparatively high, the variation among their mill net returns might be as much as a dollar and a half per ton, as indicated on the diagram, but the amounts which they might realize over their base prices are of no consequence to either producer or consumer.

³⁸ NRA Report, p. 125.

The problem here is different from the problem of mills located far from a basing point, not only in the amounts of freight involved but also in the reason for merely meeting competitive delivered prices. Freight rates from all outlying mills to most consuming points are the same as, or within a few cents of the rates from the basing point city to such points. Customers consider all of the mills as located at the basing point city. It would be difficult for producers and customers alike to calculate freight rates from the obscure suburban stations nearest the mills, while the rates from the basing point city are more easily ascertainable. Thus, convenience dictates the announcing of base prices at and the calculation of delivered prices upon the basing point city.⁵⁹

THE BASING POINT METHOD

Diagram 13: "Phantom Freight" and Freight Absorption in Immediate Basing Point Area.

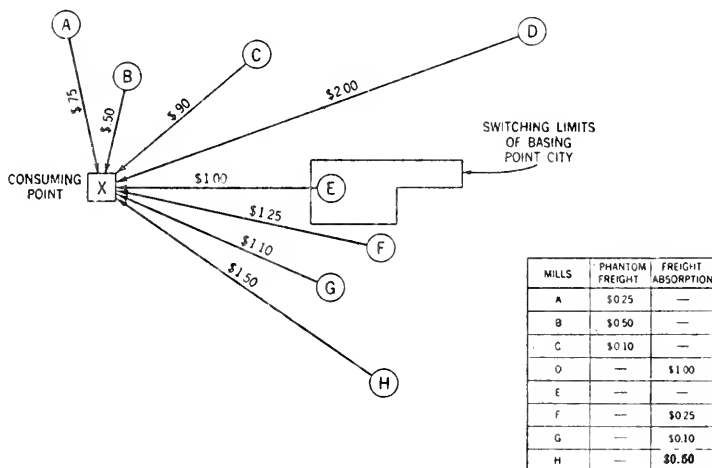


DIAGRAM 13

The reason for the practice of such mills can be better understood by examining the consequences of prohibiting it. This is illustrated by the detailed map of the Pittsburgh area shown facing page 90.⁶⁰ Then each mill located in the area near the present basing point would have its own base price, and would realize that base price exactly on every sale. To calculate a delivered price at any destination near the basing point and in the vicinity of these many competitive mills, the base price of each of these mills and the freight from each mill would have to be considered. The resulting inconvenience is obvious. Each mill would have a monopoly in a few towns in its immediate neighborhood, and there would be a few towns in which more than one mill could sell. A slight reduction in base price by one mill would enlarge its exclusive territory, but all other mills would be forced to follow such reduction, or else be excluded not only from most of their nearest markets, but also from all markets to which freight rates from the group of mills were the same. To prohibit the practice of announcing prices at the basing point city, instead of at the actual mill location a few miles away, would involve a very great trouble for a very small gain, if it would, under any circumstances, be a gain at all.⁶¹ One

⁵⁹ The same reasoning applies to the so-called "switching arbitrariness". Before the adoption of the NRA Code, all mills sold to a customer located within the switching limits of a basing point at the base price, without adding any freight. Freight rates vary even within switching limits. The variations are not large and the most convenient way of calculating the delivered price was simply to add no freight. Under the Code the practice was developed of adding to the base price a so-called "switching arbitrary" of 2½¢ a hundredweight (3¢ a hundredweight in the Chicago-Gary switching limits) for delivery within the switching limits, and the practice has generally been followed since the Code. Since the actual switching rates vary, the mills may be said to realize "phantom freight" on some deliveries, and to absorb freight on others, but the amounts involved in either case are insignificant.

⁶⁰ Of the original document. See facing page 84, *infra*.

⁶¹ Many of these points are noted in the NRA Report, pp. 104-107, and p. 173.

should also note that while a mill may realize small amounts in excess of its base prices on some sales in its own local district, it must accept returns less than its base prices on other sales in the same district, in order to meet competition, so that it is very doubtful whether any mill in a basing point area realizes any net gain even on sales to its nearest customers.

(2) *Use of Cheaper Means of Transportation.*—Referring to the foregoing Diagram 4, which is here reproduced, the mill at A must "absorb" \$1 freight if it sells at X and ships by rail. On the other hand, if it ships by water, it will pay \$1 less freight than it uses in calculating the delivered price, and will realize a mill net return \$1 higher than its base price. As before mentioned, this \$1 has been called "phantom freight" by critics of the basing point method.

The same result would be reached if the mill at A could ship by truck to X for \$1 less than the rail freight from B. This \$1, too, would be called "phantom freight" by such critics.⁶²

This practice is criticized because it is said that the mills are keeping to themselves all the benefits of the cheaper forms of transportation which they employ. Critics assert that the mill should sell to any customer at the mill for its base price, and should let the customer arrange for shipment by any means that appeals to him. For example, in Diagram 4, the mill at A should, it is said, sell steel at its mill to the customer at X for \$40 per ton, because that is its base price at A, and should let the customer ship the steel by water himself, with a total delivered cost to him of \$40 plus \$2, the cost of water transportation, or \$1 below the prevailing delivered price at X.

Likewise, the argument continues, the customer should be permitted to arrange for delivery by truck or any other available kind of transport cheaper than all-rail, such as rail-and-water.

(i) *Water Deliveries.*—In discussing Diagram 4, a case was assumed in which the mill shipping by water realized a mill net return which was \$1 over its base price. On such a shipment, critics say, the benefit of the cheaper transportation should be given to the customer. The answer is that if the mill is the only one which can reach the destination by water, there is no competitive reason why it should give the benefit of the lower transportation to the customer. In fact, if it did so, it would be following some non-competitive principle. Consequently, critics are obviously mistaken when they contend that the alleged collection of "phantom freight" on such deliveries is evidence of a lack of competition. The same conclusion follows when some, but not all, of the competing mills are able to reach a destination by water, and all of these particular mills retain the benefits of the cheaper water transportation when it is used by them.

Water shipments, even though they may cost less than rail transportation, do not always, however, result in the mill realizing more than its base price. In Diagram 14, A and B are basing points, each with a base price of \$40, and X is a consuming point with a delivered price, calculated from B, the applicable basing point, of \$42. When the mill at A ships to X by rail, it realizes \$42 less \$4.50 actual freight or \$37.50,—\$2.50 less than its base price. If it ships by water to X, it realizes \$42 less \$2.75 actual freight, or \$39.25—\$0.75 less than its base price. That is, the use of water transportation by the mill at A for shipments to X does not yield a mill net return above its base price,—it merely enables the mill at A partially to overcome its freight disadvantage as compared with B. It can hardly be said that in such a case the consumer at X is being discriminated against. Such situations comprise a vast majority of shipments by water and include most of the water shipments to the Pacific Coast, the Gulf of Mexico, Lower Mississippi River points and principal Great Lakes consuming centers.

It may be argued that this is no reply to the criticism as applied to instances in which the mill actually does realize more than its base price on a water shipment. However, a general review of the revenues of a mill on navigable waters puts the matter in a different light. In Diagram 15, A is a basing point, located on a navigable river, and the irregular circular line marks its natural selling territory based on rail freight rates. So long as A ships by rail, it has a freight disadvantage on sales outside of this line, because it is hemmed in by competitive mills at other basing points. The use of river transportation, however, increases the areas in which A can sell without a freight disadvantage, as shown by the dotted lines. Beyond the dotted lines, A has a freight disadvantage even if it ships by water, but the lower water freight cost will reduce the freight disadvantage below that present in a rail shipment. The mill at A will realize more than its base price on sales to points within the dotted lines, but since on all other water shipments it will still be "absorbing" freight, it may not, on the whole, be profiting

⁶² See diagram 4, p. 35.

by the use of water transportation,—it will merely be reducing its freight disadvantage. Hence, from the point of view of successful operation of the mill, it is natural and even necessary for A to keep the advantages resulting from some water shipments in order to offset disadvantages resulting from other shipments.

It should also be remembered that water transportation, if available, can be used only on a limited class of business. Ordinarily, only orders of 200 tons or more can be carried economically by barge, and the minimum load for shipment by boat on the Great Lakes or on large rivers is also considerably larger than for rail transportation. Furthermore, water delivery is slower than rail delivery and consequently the customer must be willing to wait. This means that much of the steel carried to towns which are accessible by water moves by rail because buyers' requirements are too small or because buyers demand quicker delivery. At the same time, a mill located on water is probably absorbing large amounts of freight on shipments outside its local market territory. Consequently, it seems proper for the mill to keep such savings as it can effect through the use of water transportation, until it is compelled by competition to give up this advantage.

Competitively, there is a good reason why a mill located on water is not disposed voluntarily to give customers the advantage of cheaper water delivery. Suppose that a new mill is built, which is ideally located for shipment of its products by water, and can so reach many towns which are inaccessible to any other mill except by rail. Assume that it can reach town X by water for \$1 less than the prevailing delivered price at that destination. Suppose that the mill makes a delivered price at X, based on water freight, \$1 less than such prevailing delivered price. It will, of course, quote that delivered price only on business which can actually move by water, which means that the buyer must order a minimum of 200 tons at one time, and must be willing to wait for water delivery. These requirements in themselves greatly limit the number of customers who can take advantage of the lower price, and these limitations are imposed not by the steel mills but by the natural circumstances of water shipment. However, some customers may take advantage of the lower price. Competitors will find out about the new price and will meet it. That is normal practice in the steel industry. One might expect that so long as competitors merely met the cut, the customers would keep ordering from the mill which initiated it, by way of a reward. But the competitors meeting the lower delivered price will be inland mills, which cannot ship by water. In addition to meeting the new price, these inland mills will offer other inducements, for they will ship by rail, which is faster, and will require a minimum order of only a 20-ton carload, instead of 200 tons. Salesmen naturally will emphasize these advantages and buyers will welcome them. Moreover, the inland mills will not confine the lower price to the few customers who are able to order in 200-ton lots, as the first mill did; the 200-ton minimum which applies to water shipments will have no significance for a mill which must ship by rail in any case and the lower price will be extended to customers to whom the first mill would not have given it. Consequently, the first mill will find that the delivered price at X has fallen by \$1 and that inland competitors, by accepting smaller orders and delivering more quickly, are taking the bulk of the business there. It will ultimately be forced to ship by rail also and perhaps to accept mill net returns less than its base price. The net result will be to lower the delivered price at X, while all or most of the steel used there will still be carried by rail.

When competitors find that a lower delivered price has been made at one destination on navigable water, they may themselves initiate prices based on water freight at other towns, similarly located, believing that the first mill has made or will name lower prices all along the water route. Lower prices may thus extend from town to town, into areas in which the first mill intended to maintain its delivered prices based on rail freight. After buyers have become accustomed to the new price level, they may begin again to put pressure on the first mill to cut the prevailing delivered price by the amount of its savings on water shipment. And so the circle may be traversed again.

Price reduction of this kind throws delivered prices along the water route out of relation to the ordinarily applicable base prices. Such price changes spread to inland shipments. Frequently consumers located away from water are in competition with consumers on the water, and they will insist that the lower price should be given also to them. A steel mill is reluctant to see any customer losing his market, because that means a loss of business for the mill. Consequently, inland customers after a period of time, are apt to be given the lower price, merely because it is applicable to their competitors on the water route, thus tending to reduce the entire price level in a large area with no ultimate advantage to the mill initiating the lower delivered price.

THE BASING POINT METHOD

Diagram 14: Water Shipment may merely reduce Freight Absorption.

Mill at (A) absorbs \$2.50 Freight when shipping to (X) by rail.
It absorbs only \$.75 Freight when shipping to (X) by water.

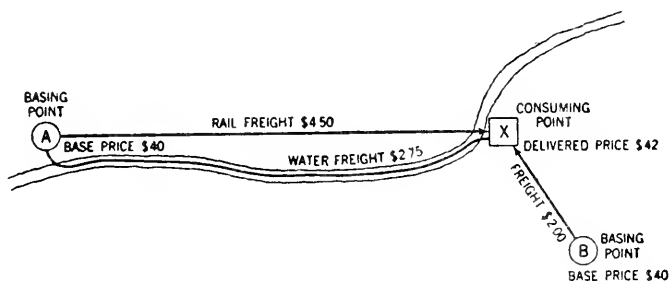


DIAGRAM 14

THE BASING POINT METHOD

Diagram 15: Natural Selling Territory increased by use of water route.

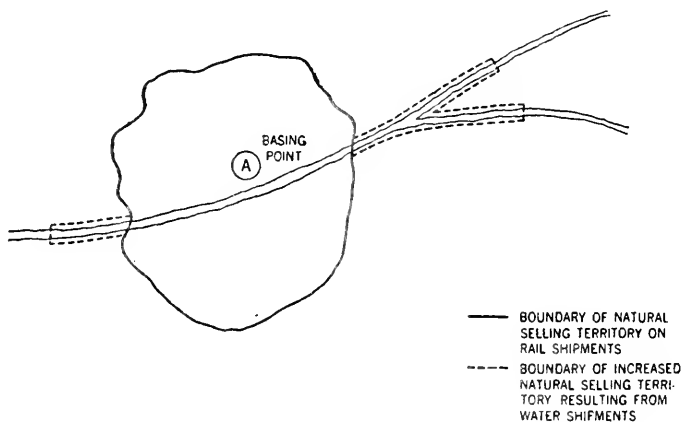


DIAGRAM 15

Apart from theoretical considerations, however, it may be stated that the problems of water transportation have been greatly exaggerated by critics of the steel industry. In actuality, water transportation is not available to the extent suggested by the criticisms nor to the extent which might be supposed merely from a study of the location of steel mills and markets in relation to waterways, since there are many limitations to water transportation, the most important of which is that only very large tonnages can ordinarily be transported economically by water. Customer demand for water shipments is negligible and the only basis for such demand is the possibility of a saving in delivered prices, since water delivery is much slower and involves other inconveniences to the buyer. In a great many situations, charging the customer the water freight rate from the mill to the destination would not result in lower delivered prices than charging the rail freight rate from the applicable basing point to the destination, in view of the number and location of existing basing points. In many instances, where lower delivered prices would result, the actual water rate is charged or the customer is given all or a part of the saving resulting from water transportation.

(ii) *Truck Deliveries.*—When delivery by truck is cheaper than rail delivery, if the mill includes rail freight in calculating the delivered price, it will realize more than its base price. Critics will contend that it has charged "phantom freight". The situations with respect to which this criticism may be made, however, are limited by several factors.

Although almost any steel product can be shipped by truck, not every product can be shipped economically in that way. Light, flat rolled products are the easiest to load and to transport by truck. Many types of wire products also can be carried economically by truck. But the shipment by truck of heavy products, such as structural shapes, plates, heavy tubes, etc., which usually are ordered in carload quantities, is almost certain to cost more, both in money and in inconvenience, than delivery by rail.

Large consumers of steel, moreover, are usually equipped with railroad sidings, cranes, and other machinery for large-scale railroad car unloading operations. The use of trucks, which carry smaller loads, would require the installation of new equipment, while the smaller scale of operations would make it doubtful whether any savings could be realized, even if the cost of transporting by truck should be lower than by rail.

While there is considerable demand for delivery by truck of some products, it is primarily with a view to obtaining quick delivery of small quantities from nearby mills, rather than any advantage in delivered prices. Truck freight rates are generally substantially the same as rail freight rates for corresponding quantities, except in a limited weight range, and are not infrequently higher. On deliveries within the rail switching limits of producing centers, truck freight rates are almost always higher than the rail switching rates, and, on carload quantities, substantially higher. Also to be considered is the additional cost and inconvenience of loading trucks, which reduces any possibility of advantage to the mills. Subsidiaries of the United States Steel Corporation seldom receive any advantage from truck deliveries, and lose, rather than gain, on truck shipments as a whole. This is believed to be true of the steel industry generally.

Large consumers usually have found it unprofitable to use their own trucks in assembling raw materials at their plants. Trucks belonging to such an industrial company are generally forced to make an empty trip from the plant to the source of the raw materials. The use of trucks produces a saving only when the trucks have a pay-load both coming and going. An industrial company could fill its trucks on runs in both directions only by maintaining a staff to find business for the trucks, which would mean entering a new and competitive business as a sideline.

A practice generally exists in the steel industry of including in the delivered price to a buyer, who accepts delivery by sending his own truck to the mill, the rail freight from applicable basing point to destination, and allowing him a credit equal to 65% of the rail freight from mill to destination. This might be construed to mean that the buyer always pays one-third of the rail freight used in calculating the delivered price for the privilege of taking delivery by his own truck. This is true, however, only when the mill is at the basing point freightwise nearest to the buyers' destination. If the mill is not at any basing point, the effect of this practice will be either to increase the amount realized by such mill in excess of the base price at the basing point as a result of its geographical location, or merely to decrease the freight absorption which would result from a rail shipment. For example, suppose that the buyer is located \$.50 freightwise from the applicable basing point, while the mill is only \$.12 freightwise from the destination. In this

case \$.50 per hundredweight will be included in the competitive delivered price, while only two-thirds of \$.12 or \$.08, will be allowed as a credit, thus resulting in a mill net return of \$.42 higher than the base price at the basing point. If the mill had shipped by rail it would have realized \$.38 higher than the base price at the basing point. Conversely, suppose the buyer is located \$.10 away from the applicable basing point, while the mill is \$.30 freightwise away from the destination. In this case \$.10 freight is included in the delivered price, while two-thirds of \$.30, or \$.20 will be allowed as a credit, thus resulting in a freight absorption of \$.10, as compared with \$.20 which the mill would have absorbed if it had shipped by rail.

Freight absorptions may also occur in the case of mills at basing points. For example, suppose that both Chicago and Cleveland are basing points, that a buyer located \$.10 freightwise away from Chicago sends his own truck to a Cleveland mill, perhaps in an effort to obtain a quicker delivery, and that the freight from Cleveland to the destination is \$.33. The mill will include \$.10 freight in computing its delivered price (based on Chicago as the applicable basing point), but will allow a credit of \$.22, which results in freight absorption of \$.12.

The practice of including in the delivered price the full rail freight from the applicable basing point and allowing a credit of only 65% of the rail freight from mill to destination is primarily due to the fact that the loading of trucks is more costly and inconvenient than the loading of railroad cars. It is undoubtedly true that truckloading generally costs more, and often considerably more than railroad carloading, although this is not universally the case. The inconvenience to the mills and indirect costs resulting therefrom is considerable at almost all mills. Such inconvenience arises from the problems of routing trucks through the grounds of large works, waiting for late trucks, arranging for trucks at the buyers' request, interruption of railroad carloading operations, etc., and is greater in the case of buyers' trucks. Undoubtedly the additional cost and inconvenience of loading trucks justifies an extra charge, particularly at older mills which were planned exclusively for carloading, and offer little possibility for installation of truck-loading facilities.

In summary, the answers to the criticism of "phantom freight" supposedly realized by steel mills on truck deliveries may be summarized in the following points: first, only an extremely small proportion of steel tonnage is delivered by trucks, partly because many products cannot be economically hauled by truck, and partly because large consumers prefer rail delivery. Secondly, truck movements frequently result in freight absorptions, sometimes because of the 65% allowance for shipments in buyers' own trucks, and also, because of deliveries within the switching limits of basing points, where only the "switching arbitrariness" are included in the delivered price. Third, the rates of common carrier trucks, regulated by governmental agencies, are seldom much lower than rail freight rates, and sometimes are higher. Fourth, at the majority of mills it costs more to load steel into trucks than to load into railroad cars, and furthermore delivery to trucks involves inconvenience, loss of time, and other similar considerations which cannot easily be translated into dollars and cents. It seems clear that the mills are not profiting as a result of truck deliveries. The criticisms on this score are more theoretical than real.

(b) *Freight Absorption.*

(1) *General Discussion.*—When a mill competes with another mill which is closer freightwise than it is to the destination, it must meet the delivered price of such competitive mill in order to obtain the business. This usually results in the first mill not realizing a mill net return equal to its base price. Such difference is said to be "absorbed" freight. This practice has sometimes been criticised as discriminatory, because it is contended that the mills realize their highest mill net returns on sales to their nearest customers and progressively lower mill net returns as the distance to the customer increases. Critics say that under "perfect competition" the same mill net return would be realized on sales to every customer, with only such differences as were brought about by changes in the market price due to supply and demand. They contend that under the basing point practice the mills permit other mills to sell in their local territories, and, conversely, they themselves sell in the local territories of other mills, always at the delivered price calculated with reference to the applicable basing point, and with discriminatory mill net returns.

It is true that freight absorption of this kind and variable mill net returns were not contemplated by the classical theory of "perfect competition." Critics of the basing point practice ignore the fact that "perfect competition" is an abstraction,

and was not intended, by the economists who developed it, as a standard to which all industries should conform. Furthermore, as has been pointed out, they assumed a freightless market so that neither buyer nor seller needed to be concerned about transportation costs.⁶³ Freight absorption is not by any means rare, or confined to the steel industry. Some customers of department stores, corner groceries, etc., carry their purchases home, while others have them delivered at no extra cost. Candy bars and cigarettes are sold at uniform prices all over the country and at varying distances from the factories where they are made. Competing railroads charge the same rate between two cities, though one of them may have a longer route than the other. These few examples will suffice to show that freight absorption occurs over a wide range of industry.

The competitive reasons for such a practice in the steel industry can best be understood by considering the problems of a producer located at a particular producing center—Pittsburgh, for example. The mills in the Pittsburgh district have a freight advantage over outside mills in selling in their own local territory, that is, in and around Pittsburgh. Naturally, therefore, they will quote delivered prices which realize as fully as may be this advantage of location over their farther away competitors. The discussion of the location of steel mills has shown that the most economical locations are those near the sources of raw materials. Consequently, capacities of steel mills in those areas are usually large enough to supply much more than the local demand. The producer in Pittsburgh undoubtedly will have facilities of such size that the full output thereof cannot be sold in the area in which he has a freight advantage over other mills. He may choose between three courses. First, he may sell as much of his output as he can in the area around Pittsburgh, and not attempt to dispose of the balance of his output. Or, he may lower his base price in an effort to expand the area in which his delivered price will be as low as or lower than that of his competitors at other basing points. Or he may maintain his base price on sales in the Pittsburgh area, and sell the rest of his output in territories nearer to other mills by meeting the delivered prices of such competitive mills, thus realizing lower mill net returns on such sales than on sales in the Pittsburgh district.

The producer is not apt to be content with selling only that part of his output which can be disposed of in the territory around Pittsburgh at the prevailing prices. The resulting low rate of operations would greatly increase his unit costs, and reduce his margin of profit. On the other hand, he is not likely to initiate a lower base price in his own local territory, because that is the area in which he rightfully has the greatest advantage over competitors. So long as competition does not compel him to quote a lower base price there, he is not likely to do so. This leaves open to him the one remaining course, which is, while selling as much of his output as he can in his own local territory, to sell the balance in areas nearer to other mills, where they have a freight advantage over him, at a lower mill net return. In the steel industry, one producer's advantage over another is for the most part geographical, and is reflected in different freight rates on both raw materials and finished steel. Consequently, a producer will try to reach the existing markets and in so doing may sell a part of his output at points nearer to other mills, meeting the prices of such competitive mills and thus realizing a lower mill net return on such sales. It is natural and proper for a producer, in an effort to keep his mill busy, to sell steel in the different consuming areas where business is available, in this way realizing varying mill net returns on his business, the variance representing freight absorption.

The NRA Report thus described the reasons for such freight absorption: ⁶⁴

"* * * Producers regularly set a lower minimum when figuring a special price to capture a special class of new business than when figuring a general price for the main body of their sales. For special prices, the minimum is likely to be close to 'out-of-pocket' or variable costs, while for a general price producers will not bid below the total costs which they must cover if they are to keep running. The difference between these two levels is frequently substantial, and lies at the bottom of the practice of absorbing freight to extend a producer's sale area."

This NRA Report also contained the following summary, in which it was stated that such freight absorption and such variable mill net returns are the natural results of bona fide competition: ⁶⁵

⁶³ See the testimony of Prof. F. A. Fetter before the Temporary National Economic Committee, T. N. E. C. Record, p. 323. In the discussion of Prof. Fetter's theory of markets, the following question was asked:

Mr. Frank: This is a picture of a railroad-less world?

Professor Fetter: Yes, it is really, of a non-transporting price. A freightless market, in other words.

⁶⁴ NRA Report, pp. 61-62.

⁶⁵ NRA Report, pp. 120-122.

"* * * the industry includes localities where several competitors are grouped, and others at which there is only one producer. In the latter case, the only kind of competition met is competition at a distance, while in the former case, both near-by and distant competition may be met. For example, the Pittsburgh switching area contains a number of different producers who compete not only with each other, but also with producers located at Birmingham, Chicago, and other places.

"Fourthly, this competition at a distance is the kind in which, in order to reach out a little farther and acquire some additional business, a producer will be willing to accept on this additional business a lower net yield than the minimum which he must receive on the average from his whole business, provided he is not in some way required to extend this low net yield to his entire output if he accepts it on any business at all. The reasons for this have been discussed under 'Guiding Principles,' II, 3 above, p. 38ff.

"Fifthly, freight rates are substantial, relative to prices, with the result that a difference in freight rates, if the customer has to pay them, is just as decisive as a difference in prices in determining which producer will get an order. And at the same time the freight rates between different producing centers are considerably less than the margin of difference in net yields which a company may voluntarily accept on different units of business in the attempt to cover its constant costs as best it can. In other words, the freight rates are not more than producers of this character are willing to absorb in order to sell more goods by extending their marketing areas; and they must be absorbed if a producer is to extend his marketing area toward the location of a competing producer and into the area where that competitor is now selling unless he voluntarily reduces his price on nearby sales to less than existing competition forces him to accept.

"In an industry marked by these characteristics, discrimination and freight absorption are natural results of bona fide competition. They result because competition acts with different force in different parts of the market. The conclusion that a producer accepts a lower net yield on a part of his sales only because he has raised the net yield on the rest of his business to a monopolistic level, is unwarranted. It may, of course, be true in a given case. But the mere existence of discrimination does not prove it. The discrepancy is quite adequately explained by the difference between competition for added business at the fringe of one's market, and competition affecting one's main output over the principal part of his market area."

(2) *Cross-Hauling*.—Due to competition and the necessity of obtaining an even flow of orders, most of the larger producers of steel compete in all of the major markets for their products. Consequently, while one mill may sell at points nearer to other mills, more distant mills are making sales in territories nearer to it. Thus, some of the shipments of steel from mill to destination cross each other. Critics of the basing point practice have called such shipments "cross-hauling" and have contended that cross-hauling results in great economic waste.

The issue is somewhat beclouded by the fact that such critics have never described with any degree of accuracy what they mean by this ambiguous term "cross-hauling", which they condemn so heartily. Strictly speaking, the term means shipments which cross each other, and the criticisms are often so phrased as to create a mental image of freight trains passing in opposite directions on parallel tracks loaded with identical steel products. Clearly, however, the criticism is not limited to the extreme case which is used to support it. Some statements of such critics indicate that they would consider any shipment to a destination from any mill other than the mill nearest such destination as a cross-haul, irrespective of whether there was a corresponding shipment in the opposite direction. If such critics intend to criticize something more than cross shipments of substantially identical products at approximately the same time, some other term should be used as the expression of the supposed evil. In fact, cross-hauling is the necessary result of competition.

In substance, the criticism is that transportation costs in the steel industry are so high as to involve economic waste and to result in inordinately high prices for steel products. Actually the steel industry does not have excessive distribution costs, as is evidenced by the fact that such costs are lower in that industry than in most other industries. In a study of distribution costs of 312 manufacturers in 1931,⁶⁶ "Iron and Steel and Their Products" ranked among those having the lowest distribution costs of the 29 industries investigated. The steel industry

⁶⁶ "Analysis of the Distribution Costs of 312 Manufacturers", published by the Association of National Advertisers and the National Association of Cost Accountants (N. Y. 1933), pp. 64, 106.

proper, undoubtedly, had even lower distribution costs than those companies included in the classification "Iron and Steel and Their Products", if the records of the United States Steel Corporation are in any way indicative of the average costs for the steel industry.

The problem of cross-hauling resolves itself into the question of what transportation costs are unnecessary and, at the same time, avoidable without the incurrance of other costs which would have an effect upon steel prices similar to that which it is charged results from so-called cross-hauling. It is impossible to measure quantitatively the amount of transportation costs which might be considered unnecessary from any point of view, and it is equally impossible to measure the economic costs which would result from any interference with present practices, or, more specifically, from any direct or indirect limitation of selling territories. However, many of the factors in the steel industry which necessitate the wide distribution of the products of steel mills have been considered herein, and consideration may be given at this point to the contention of the Federal Trade Commission that the above mentioned freight absorption is a measure of uneconomic cross-hauling.

This position is entirely untenable, as such freight absorption is not a measure of cross-hauling in any sense, and is certainly not a measure of unnecessary and avoidable transportation cost. A few examples will emphasize this point.

(1) Some freight absorption occurs when the mills which are nearest freightwise to the destination do not have sufficient capacity at any time to supply the demand at such destination. To the extent that shipments from more distant mills supply the excess demand, there is no economic waste.

(2) Some freight absorption results from shipments to destinations for which the applicable basing points are Gulf of Mexico Ports or Pacific Coast Ports. Only two of such ports are producing points and these are relatively minor producing points, so that in most cases the delivered prices are less than the sum of base price plus freight from any mill. Such freight absorption certainly does not represent excessive transportation costs.

(3) Freight absorption occurs in shipments from mills, located within a 25- or 50-mile radius of basing points, to the basing point city, or its immediate vicinity. The amount of absorption per ton is minute, and any saving resulting from its elimination would not justify an artificial prohibition against the mills in such a small area competing with respect to all the business in that area.

(4) Some freight absorption occurs on shipments from one mill belonging to a steel company, which has another mill located nearer the destination. Obviously, there are compensating economies which cause such shipments. Even products of a single general classification, such as plates, differ greatly in size, gauge, metallurgical analysis, etc. When a mill in one area is engaged in producing one kind of plates, it is often more economical to ship another kind of plates from a mill in another area rather than to change the production schedules at the first mill. Furthermore, the demand for many specialized products is not large enough to justify their production at more than a few mills. Production will often be concentrated at one or two points, although the product is sold in areas nearer other producing mills.

(5) Some freight absorption occurs as a result of shipments by a transportation medium more expensive than that used in calculating the delivered price; e. g., shipments by rail where the delivered price reflects the cost of water transportation, and shipments in less than carload lots of a large order priced on the basis of the carload rate. Similarly, freight absorption occurs in some cases because the customer is charged freight on the weight of the steel alone while the mill pays freight on the total weight, including packing and blocking material. Such freight absorption cannot be condemned as economic waste.

(6) Some freight absorption occurs as a result of customer preferences. Among the bases of customer preference are suitability of the product of a particular mill to a particular customer's needs, conditions of service, including time of delivery and desire on the part of customers to maintain several sources of supply. If economic waste is here involved, it is, nevertheless, waste which could be eliminated only at the expense of arbitrarily depriving steel consumers of any choice in their source of supply.

The circumstances above enumerated indicate clearly that freight absorption is no accurate measure of cross-hauling as this term is used by the critics, that is, in the sense of an economic waste. There is a further important consideration, however, which must be emphasized. A large amount of freight absorption may occur in shipments from mills, located near the source of raw materials, to destinations nearer to competitive mills which have longer hauls of raw materials. To

consider such freight absorption alone gives a most incomplete picture. Offsetting this freight absorption is the saving in transportation charges, as compared with such competitive mills, which such mill has secured by being located near its source of raw materials. Clearly economic waste is not involved in such cases.

Before cross-hauling is condemned, it should be proven that the alternative would not involve economic costs, by way of transportation or otherwise, in excess of the supposed saving which would result. Not to be overlooked is the interference with competition which would necessarily be the consequence of any artificial limitation of marketing territories. Freight absorption is primarily produced by competition in the steel industry

(c) Summary.

In this section, two causes of variation in mill net returns have been considered, one of which results in a mill net return above the base price, while the other results in a mill net return below the base price. Both of these variations have been criticized as symptoms of monopoly. It has been shown, however, that the realization of mill net returns above the base price which critics misname "phantom freight", is actually the result of competition; it is the way in which a producer realizes his competitive advantage over other producers resulting from his superior geographical location. The realization of mill net returns lower than the base price, which critics term freight absorption, also results from the competition of producers at varying distances from the destination for the same business. Without freight absorption, freight rates would set up a wall between different producers and their markets, greatly limiting the area over which competition now takes place, and producing in many parts of the country virtual monopolies.

It is true that variable mill net returns of the kind found under the basing point method do not represent the uniform market prices which would be expected if the assumptions of the theory of "perfect competition" were realized. The fact is, however, that these variations from the classical assumptions, which are also found in other industries, are due to certain inherent characteristics of the steel industry, primarily the importance of low assembly costs in determining the location of steel mills, the large size and great cost of integrated and diversified steel mills, the geographical separation of producers, the geographical distribution of demand and the nature of steel production costs.

THE PROPOSED ALTERNATIVE TO THE BASING POINT METHOD

1. INTRODUCTION

In the preceding discussion, it has been pointed out that the theory of "perfect competition" is an abstraction, and that the steel industry, like other industries, varies from the theoretical assumptions underlying "perfect competition"; that the basing point method is not a responsible cause of variations from the theory; that the underlying causes are economic factors which are independent of the basing point method; and that monopoly or monopolistic practices are not among the underlying causes. The basing point method is not evidence of monopoly, nor is it caused by monopoly.

Consideration may be given, however, to the question of whether these differences from the assumed conditions of the theory of "perfect competition" are desirable from the point of view of the public welfare.

In order to satisfy one of the theoretical requirements of "perfect competition", it would be necessary that there be steel mills scattered all over the country near each market and that there be many separately owned mills at each location. The reasons why this physical division of mills could not be accomplished economically in the steel industry have already been stated. First, raw material assembly costs limit the locations of mills to a few areas. If mills were erected in other districts, more than four tons of raw materials would have to be hauled to the mills for every ton of steel produced. Second, large scale diversified operations are cheaper than small scale operations. Thus, if the present large units were broken up and replaced by scattered small mills, both assembly and production costs would be higher than they are now and would be reflected in higher prices for steel products. A mill of economical size near the sources of raw materials probably could and would undersell these local mills in their own territories gradually forcing a return, through competitive pressure, to present conditions, unless artificial barriers were set up. Third, mills large enough to produce many products inherently have large capacity, so that the scattered mills would merely result in duplication of capacity. To approximate another condition of theoretical "perfect competition" in the steel industry, the same conditions would have to

exist with respect to the buyers as with respect to the sellers, and on the buyers' side either the economies of size would also gradually cause a return to present conditions or the disregard of such economies would result in higher prices.

Thus it appears impossible to produce in the steel industry an imitation of the assumed conditions of "perfect competition" along classical lines. It should be remembered, however, that the same is true of all other industries in our economy.

In considering the desirability of "perfect competition" in the steel industry, even if it could possibly be attained, a principal factor is the cost to the public which it would entail. The costs involved in breaking up sellers and buyers so as to have many competitors on both sides of the market has been dealt with in a preceding paragraph. Another element previously discussed, which cannot be overemphasized, is the effect of the business cycle.

As has been pointed out herein, the business cycle was ignored in the thinking which led to the development of the theory of "perfect competition". The classical economists assumed fairly steady demand or, at least, moderate, long-run shifts in demand. Working on this assumption, they concluded that "perfect competition" would result in the elimination of high-cost producers, would limit the profits of average and low-cost producers to a reasonable amount, and would prevent any great amount of excess capacity or of deficiencies in capacity. The business cycle, however, produces enormous fluctuations in demand, particularly for producers' durable goods, such as steel. These fluctuations are independent of price. Due to such fluctuations, "perfect competition" would produce results vastly different from those contemplated by the classical economists.

Cyclical fluctuations in demand tend to produce a disproportion between capacity and demand at either the lower or upper phases of the cycle, which conditions are not satisfactory to industry or to the public. Particularly in the steel industry, which requires large and expensive plants and machinery, either facilities will be built to supply peak or near-peak demand, which will result in idle capacity during the other phases of the cycle, or facilities constructed to supply a lesser demand will be insufficient to supply the peak demand, with the result, in the upward phase of the cycle, of a scarcity and a great rise in prices which might well impede the development of the expanding economy. It is important to note that no matter which course the industry may take, dislocations will occur which were not contemplated in constructing the theory of "perfect competition."

The steel industry has facilities for supplying the peak or near-peak demand for steel. This is shown by the high operating rates during the big production years of 1929 and 1937, and the present operating rate of more than 90% of ingot capacity, which rates may be compared with the low operating rates during the intervening periods.

The injection of the phenomenon of the business cycle has a profound effect upon the supposedly beneficial consequences of the classical theory of "perfect competition". It has been assumed that if "perfect competition" along classical lines could ever be established, it would produce wholly beneficial effects for society. No one, however, has ever demonstrated that these effects would follow from "perfect competition" in an economy affected by a pronounced business cycle. In the absence of such a demonstration, it is impossible to make any correct assumption that deviations from the theory of "perfect competition" are damaging to the social welfare. On the contrary, it is quite possible that these deviations, by interrupting or checking some of the more abrupt changes in the course of the business cycle, perform a valuable social and economic function.

In considering the question of the social desirability of the basing point practice, it is necessary to keep constantly in mind the fact that practical analysis cannot be made in a vacuum. It requires an investigation of alternatives. The practical problem is whether any alternative would not cost more than it would contribute. The only alternative seriously suggested by the critics of the basing point method is the uniform f. o. b. mill price system.

2. THE PROPOSED UNIFORM F. O. B. MILL PRICE SYSTEM

The uniform f. o. b. mill price system, proposed by the Federal Trade Commission and by Professor Fetter, would require every mill to sell all its products at prices quoted f. o. b. the mill. The prices at each mill would have to be uniform for all buyers. In other words, every mill would have to sell its product at the mill door, at the same price to every buyer, leaving the buyer to find his own means of transportation from mill to destination.

The Federal Trade Commission has publicly taken the position that the uniform f. o. b. mill price system was prescribed by its 1924 "cease and desist" order di-

rected against certain subsidiaries of the United States Steel Corporation in the "Pittsburgh Plus" case.⁶⁷

The origin of the proposed uniform f. o. b. mill price system probably is to be found in the testimony of certain economists who testified in the Pittsburgh Plus case against the continuation of that practice. The trial examiner found as a fact that prices of steel products had been quoted f. o. b. the mills until the Pittsburgh Plus practice began to be followed some time in the 1890's. However, it is known that about 1750 iron products were sold on a Philadelphia base, with outlying mills absorbing freight in order to bring their product to the central market. The Federal Trade Commission appears to have taken the view that f. o. b. mill prices were the rule until the beginning of the Pittsburgh Plus practice.

From this assumption the Commission and other critics seem to have concluded that f. o. b. mill prices are the "natural" way of quoting steel prices. This opinion is bolstered by the further assumption that the "true market" for steel is at the mill. From this reasoning has come the conclusion that uniform f. o. b. mill prices would reproduce all the assumed conditions underlying the theory of "perfect competition", and would produce all the beneficial results which are supposed, under classical theory, to follow from "perfect competition". This is the basis of the view that a substitution of uniform f. o. b. mill prices for the basing point method would result in lower prices for steel, better locations for steel plants, and, in general, a cure-all for the various alleged defects of the basing point practice.

(a) *"Perfect Competition" and the Uniform F. O. B. Mill Price System.*

Since the Federal Trade Commission's view developed, at least in part, from the supposed earlier f. o. b. mill prices, it should be pointed out that the proposed uniform f. o. b. mill price system differs fundamentally from its earlier model in the requirement that mill prices be uniform to all buyers. There is no reason to suppose that such earlier f. o. b. mill prices, if they existed at all generally, were the same to all buyers. Undoubtedly, competition must have forced producers to quote lower prices to customers located nearer other mills, which had geographical advantages in selling to such customers. The requirement that prices of a producer be uniform is arbitrary from the point of view of the producer, both in and of itself and because of its consequence of strictly limiting the selling territory of his mills. Since wide distribution is necessary to obtain an even flow of orders and for other reasons which have been discussed, the producer naturally attempts to realize the highest mill net return on each sale. Thus when he is dealing with a customer near to him, who cannot purchase from another producer without the addition of the freight from this other producer's plant, the nearer producer will, in some circumstances at least, quote a price which is equivalent to what the buyer will have to pay if he purchases elsewhere. In other cases he will be forced to meet the price of competitive mills which are nearer to the buyer. Thus sales at varying mill net returns are natural in the steel industry and result from the play of competitive forces. A requirement that all sales by any producer be made at uniform prices regardless of the buyer's location is artificial. It means that the producer must either refrain from taking orders which are necessary to the operation of his mills, or else he must extend a lower price to customers near his mill when competition does not compel him so to do.

Under the uniform f. o. b. mill price system a producer would have to find a price which would cover his total costs, including overhead, and at the same time extend his sales over an area broad enough to keep his mill operating at an economical rate. If any mill's costs and geographical relation to its customers should be such as to permit a satisfactory solution of this problem, it would be an exceptional case.

Consideration may also be given to the question of the extent to which the proposed uniform f. o. b. mill price system would bring about the assumed conditions of "perfect competition," as contended by the Federal Trade Commission.

For the most part, the sales of steel producers would be restricted to an area surrounding their own mills. If they set prices low enough to permit sales to be made in the territories of other mills, retaliation by the latter mills would naturally follow. In consequence, buyers for the most part would be reduced to purchasing from the nearest mill, unless price differentials at different mills were so sharp as to permit a lower delivered cost on a shipment from a more distant mill. In any event there would be very little or no choice.

In some districts where there are many mills, local buyers might have some choice of sources of supply.⁶⁸ The number of producers among whom they could

⁶⁷ See Exhibit No. 358, p. 9. An appeal from such 1924 order of the Federal Trade Commission is now pending before the United States Circuit Court of Appeals for the Third Circuit.

⁶⁸ This would not necessarily be true. See the detailed map, facing p. 84, *infra*.

choose and who would be competing with each other for each buyer's business would, however, be greatly reduced. Any single producer located at a distance from all other mills would have a virtual monopoly with respect to the buyers in his territory. Competition would be principally along the boundary between the market territories of geographically separated mills and, at all relative price levels, would actually be limited to a few points.

It is difficult to understand how such a competitive situation would conform to the assumed conditions of the theory of "perfect competition." The theory requires many buyers and many sellers in contact with each other. In most producing districts, however, there are not more than two or three competing producers, and in many areas there is only one. Since buyers, for the most part, would buy from the nearest mill because its price plus the transportation charge to destination would be the lowest, there would often be only one producer and never more than a very few producers with whom each buyer could be in contact. On the buyers' side there would be the same number at each point of competition as at present, but no more. This certainly does not correspond to the assumptions of the classical theory of "perfect competition."

It is also unlikely that new mills would be constructed near the mill of an isolated producer who was realizing a high price, unless the local market was greatly in excess of the output of such isolated producer. The capital investment required for a steel plant is extremely large, and the nature of the business, with its difficult production processes, would make the enterprise very questionable. Furthermore, a new mill, and particularly a small one, would have high production costs, and would be more than likely to accept the price structure as it found it. Thus, it seems unlikely that even over the long run any substantial increase in the number of producers in any district would occur under the proposed price system. A law cannot prevent large scale operations being cheaper than small scale operations, or shift the iron ore and coking coal deposits to different and scattered locations.

It thus appears that the uniform f. o. b. mill price system would not produce conditions resembling those assumed in the theory of "perfect competition." It would simply be the substitution of a new set of variations from those assumed conditions. The assertion that the uniform f. o. b. mill price system would produce all of the assumptions of "perfect competition" cannot be supported, and it, therefore, cannot be presumed that this system would produce the social and economic benefits which it is supposed would result from the realization of "perfect competition."

Some economists have expressed the opinion that the suggested uniform f. o. b. mill price system would not produce theoretical "perfect competition." The NRA Report, for example, says:⁶⁹

"Professor F. A. Fetter's discussion of basing point practices classes as competitive only that type of price structure which would result from rivalry between producers located at identical shipping-points, and thus classes as monopolistic all modifications of the price structure resulting from rivalry of producers at a distance from each other. From the standpoint of this second variety of competition it would be equally valid to class as monopolistic the uniform mill-base price system which Professor Fetter accepts as the only truly competitive structure."

Professor de Chazeau has written of Professor Fetter's "Masquerade of Monopoly" as follows:⁷⁰

"Nowhere in his book is there the faintest recognition that the economic conditions of production and distribution may have become fundamentally inconsistent with the existence of perfect competition. Professor Fetter never raises the question: What method of pricing can be made to work in the steel industry? His defense of the mill-base price rests not on an analysis of the steel industry but on a deduction from the concept of a free market under perfect competition. This is unfortunate. As an exposition of monopolistic discrimination, Professor Fetter's book is authoritative; as a proof of the economic feasibility and social desirability of the mill-base price for steel, it is irrelevant except in so far as the opinions of a recognized economist command respect."

(b) *The Effects of the Uniform F. O. B. Mill Price System.*

(1) *The Nature and Extent of Competition.*—Existing steel mills have been located largely by reason of low raw material assembly costs. They are obliged to sell their products over wide areas. Most of such mills have developed large scale operations, with the object of supplying the entire country from a small number of producing districts. Nevertheless, some isolated plants have been erected, at

⁶⁹ NRA Report, pp. 59-60.

⁷⁰ Daugherty, etc., "Economics of the Iron & Steel Industry," p. 547, note 1.

points like Detroit; Granite City, Illinois; St. Louis; Kansas City; Pueblo, Colorado; and Birmingham, Alabama. There are some areas with many producers whose total capacities far exceed local demands, and other areas in which there is only one producer, and, over great expanses of the country, no producer at all.

A uniform f. o. b. mill price system would affect the closely grouped producers and the isolated producers in different ways. An isolated producer would be protected from other producers by a wall of freight rates, and would be able to charge high prices to consumers in his own area.

The Federal Trade Commission says that in such a case either outlying producers would set lower prices and force the isolated producer to lower his own price, or someone else would construct a mill nearer the isolated producer, and would compete with him in his own market. These suppositions would probably not be realized. In the first place, if an outside producer tried to compete by naming a lower price, he would have to extend that price to all of his customers. He would be much less likely to reduce prices than he is under the present practice, which does not require him to realize the same mill net return on sales to all customers, including those from whom, owing to a geographical competitive advantage, he can realize a higher mill net return. Thus, under the proposed uniform f. o. b. mill price system, unless the isolated producer's price were exceedingly high, outlying producers could not afford to name a price enough below his to take any substantial part of his market. These same outlying producers, it should be noted, are probably today willing to compete in that area by accepting a lower mill net return on that part of their output which can be sold in the market territory of the isolated producer. The artificial requirement of uniform mill net returns would prevent this existing competition.

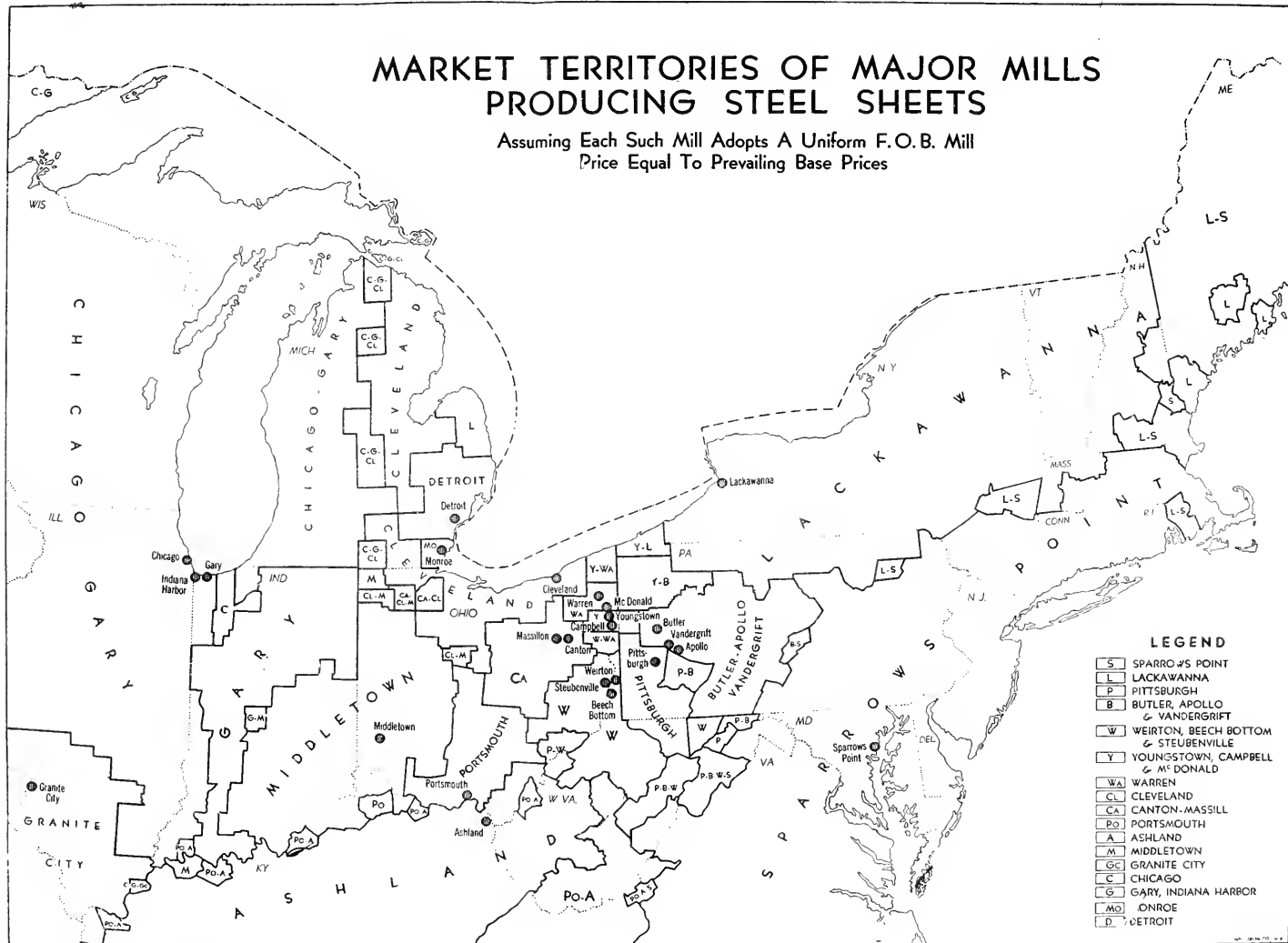
The producers who are close together would be in intense competition with each other, not only because of their nearness to each other, but also because they could sell only in the territory around them in which demand would be far below their total capacity. For example, the numerous producers in the Pittsburgh, Youngstown, and Canton-Massillon districts could sell only in the territory surrounding them, and in that territory demand would be by no means sufficient to keep their mills operating at an economical rate. The Federal Trade Commission appears to believe that such groups of mills would enlarge their sales territories by setting lower base prices than the price at surrounding mills. However, there are very definite limits to the adjustments which can be made in that way. At Pittsburgh, for example, a producer would not only find intense competition from other mills in the Pittsburgh district, but he would also find that lowering his base price would not extend his sales territory to any great extent, because Pittsburgh is surrounded by Youngstown to the northwest, Weirton to the southwest, Bethlehem and Johnstown to the east and Buffalo to the north.

One possibility which might be envisaged with respect to some products is that the mills at Pittsburgh would set their price low enough to enable them to sell up to the nearest mill in each direction, and that such mills would in turn set prices which would enable them to sell beyond up to the next nearest mill. The resulting price structure would greatly resemble that which existed under Pittsburgh Plus. However, it is more probable that the mills surrounding Pittsburgh, at least at first, would attempt to meet any lower prices that Pittsburgh mills might name. The net result of competition of this kind would necessarily be the elimination of some mills. It is asserted that this result would be beneficial, because the highest cost producers would be eliminated in accordance with the theory of "perfect competition" and the alleged excess capacities would thus be withdrawn from the market. It is by no means certain, however, that the high-cost producers would be the ones to be so eliminated. Financial strength would play a decisive part in determining which mills were eliminated. A company with several mills might make enough from its lower cost units to keep a higher cost unit in business until it had eliminated a more economical competitor. In these, and in many other ways, the elimination of producers would vary from the classical assumption that the high-cost plants would be driven from the market.

There is another extremely important factor in the market for steel which must be taken into account. Steel is sold in the form of many different products which vary all the way from semi-finished products, such as ingots or slabs, to highly finished products such as cold reduced strip; and from light polished wire to heavy wide-flange beams. The uses of steel products vary from fine wire used in musical instruments to thick plate used in the construction of ships, or heavy girders in skyscrapers and bridges. The market for every product in this wide range varies. For example, wide-flange beams are used very largely in big cities such as New York and Chicago. Sheet piling is used almost exclusively

MARKET TERRITORIES OF MAJOR MILLS PRODUCING STEEL SHEETS

Assuming Each Such Mill Adopts A Uniform F.O.B. Mill Price Equal To Prevailing Base Prices



8

p
r:
w
o

a
p
c

w
s
p
r
l
b
d
i
e
n
l:
s
r
r
c
v

e
c
t
y
r
k
a
s
v
k
r
v
s
s

t
t
v
l
l
ε
r
ε
k
t
v
l
ε
s
l
ε
ε

r
v
l
t
v
l
v
l

in harbors and other developments on the shores of the oceans and Great Lakes and in navigable rivers. Sheets and strip in one form are used in the manufacture of automobiles and furniture, and in other form for the construction of roofs for barns and houses, or in the manufacture of pails and agricultural implements. Tin plate is used in the manufacture of many varieties of cans extending from the heavy milk can to the tiny sardine tin. Thus, there are tremendous differences in the market for different steel products. Some are highly specialized and are purchased in only a few districts and by a few buyers, while others are used for many purposes over wide areas and are sold to many different kinds of buyers. The effect of a uniform f. o. b. mill price system upon the steel industry cannot be envisaged without considering its different effects upon the markets for all of these products. For example, one producer, making a range of products from thin strip to wide-flange beams might find that the low price on some of his products could be recouped by high prices on other products. A producer nearby, however, making only sheets and strip might be driven out of business by low prices on those products. If a producer had plants in several different districts, it would be still more difficult to foretell what effect the proposed system would have upon him.

In order to illustrate some of the complexities of the situation, the accompanying two maps have been prepared showing the distribution of sheets under the proposed uniform f. o. b. mill price system. The first map shows the locations of seventeen major sheet producing points, together with the territories in which the mill or mills at each such point would be able to sell sheets under a uniform f. o. b. mill price system, assuming prices corresponding to the present level.⁷¹ The areas in which the mills of each producing point could sell, either exclusively or in competition with mills at other producing points, are marked with the name or symbol of such producing point. Under the existing freight rate structure, no mill would be able to sell sheets in areas other than those marked with its symbol.

The first map demonstrates the rigid and arbitrary nature of the system recommended by the Federal Trade Commission. The uniform f. o. b. mill price system would arbitrarily fix both the size and boundaries of the selling territory of each mill, and the size of its market area would depend generally upon the proximity of other mills. Thus, mills at Sparrows Point, Maryland, and Lackawanna, New York, would, between them, have a monopoly of the sheet market in the entire North Atlantic Seaboard. Likewise, the mills at Chicago and Gary-Indiana Harbor would have as their exclusive selling territory for sheets all of Wisconsin, the Northern sections of Indiana and Illinois, and the Western half of Michigan, not to mention territory to the west not shown on this map. In contrast, the mills located in Western Pennsylvania and in Ohio, which have very large sheet producing capacity, would have very restricted selling areas. The mills at Youngstown-Campbell-McDonald could sell sheets in only two counties in Ohio and five counties in Pennsylvania, and the territory of the Pittsburgh mills would be almost equally circumscribed.

The first map shows graphically the series of local monopolies for the sale of sheets which would be created by a uniform f. o. b. mill price system. A vast majority of all areas would be allocated exclusively to a single producing point, and only a few small areas would enjoy competition from more than one source. All of the important steel sheet consuming centers, Detroit, Chicago, Milwaukee, Cleveland, Toledo, Cincinnati and Philadelphia, would be in the exclusive territory of a single producing point. The areas in which more than one producing point could compete do not include any which have a large consumption of sheets.

The arbitrary character of the limitation of territory, resulting from such a rigid pricing system operating under the present freight rate structure, is further illustrated by the pattern of the selling territories of certain mills. For example, the mills at Warren-Niles and Youngstown each would have monopolies for the

⁷¹ The first map was constructed on the following principles:

Producing Points—The 17 major producing points are those which, according to the American Iron & Steel Institute Directory, have modern continuous or modernized mills with a substantial capacity for the production of sheets. Outmoded hand-mills and mills having small capacities were not considered. In some cases, two or three mills located close to each other were grouped together, such as the mills at Butler, Vandergrift and Apollo, since the freight rates from each such mill to most consuming areas are the same.

Prices—Mill prices equal to prevailing basing point prices at nearest basing points were assumed. This would result in a price of \$40 per net ton at all producing points, except at Detroit and Granite City, where a price of \$42 would result, and at Monroe where a price of \$43 would result, corresponding to existing differentials at such points.

Method of Allocation of Territory—Territory was allocated upon a county basis, each county being assigned to the producing point or points from which there exists the lowest freight rate to one or two key towns in the county. (In the case of counties near differential producing points, the lowest combination of mill price and freight was used.) All-rail carload freight rates were used, except in the case of certain counties along the Ohio River having facilities for handling large shipments, for which barge rates were used.

sale of sheets in the counties in which they are located, Trumbull County and Mahoning County, Ohio, respectively. Warren-Niles and Youngstown would share the County of Ashtabula, north of Trumbull County, Ohio, while the mills at Warren-Niles, passing Youngstown, would share Columbiana County, Ohio, to the south of Mahoning, with the mills of the Weirton group, and Youngstown mills could not reach this county. Similarly, the Canton-Massillon mills would share with the Cleveland mills Henry and Wood Counties in Northern Ohio, after passing considerable territory in which the Cleveland mills would have a local monopoly. To be noted also are the sheet selling territories of Chicago and Gary. These mills would share most of the territory which either could reach, including certain Indiana counties. However, there are three Indiana counties in which Chicago mills, after passing Gary, could undersell the Gary sheet mills, and a large area in which Gary mills, after passing exclusive Chicago territory, would have a monopoly for such sales.

The arbitrary nature of the allocation of territory under the uniform f. o. b. mill price system, and the limited points at which competition could occur, is even more strikingly illustrated on the second map, which also concerns the sale of sheets. This map gives a somewhat microscopic view of a section of Western Pennsylvania and Eastern Ohio. Whereas the allocation on the first map was on a county basis, according to existing freight rates on sheets from producing points to one or two key towns in each county, on the second map allocation is on a town basis, all towns of any importance in each county being separately allocated to the mill or mills from which the existing freight rates to such towns are lowest. The symbol of the mill or mills which can sell sheets in each such town are marked in heavy print.

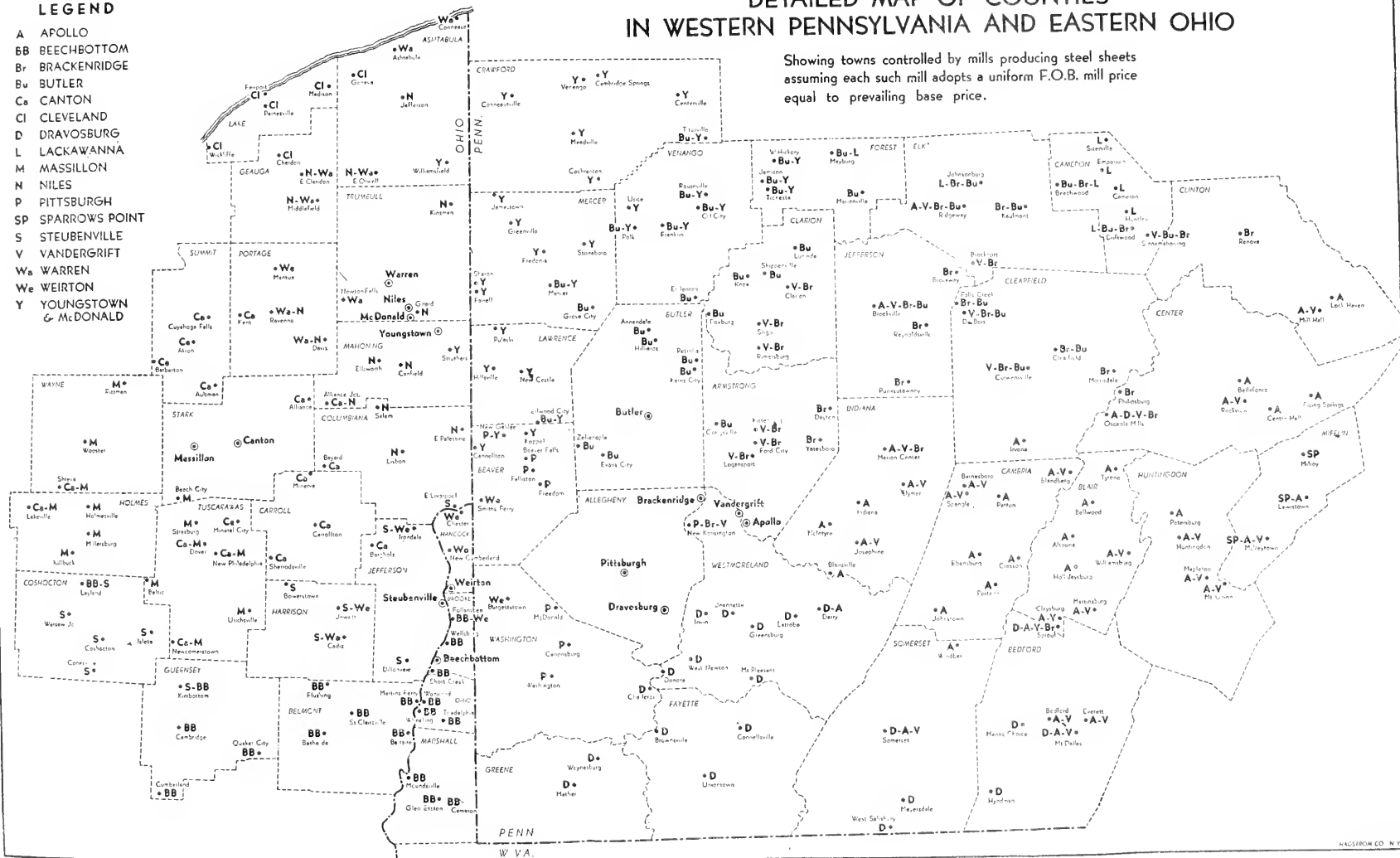
Although the first map indicated that competition for the sale of sheets between groups of mills would be possible in various areas shared by them, the detailed second map shows that even in such areas many towns would be served exclusively by one producing point—there being only a few towns that would enjoy competition in the sale of sheets from more than one producing point. For example, the County of Columbiana, in Eastern Ohio, is shown on the first map as being shared by the mills at Warren-Niles and by the mills at Weirton-Beechbottom-Steubenville. The detailed second map shows, however, three towns accessible only to the Niles mill, one accessible only to the Steubenville mill, and a fifth town accessible only to the Canton mill. So, too, Crawford County in Northwestern Pennsylvania, indicated on the first map as shared by the Youngstown and Butler groups of mills, is shown on the detailed second map to have six towns which can be reached only by the mills of the Youngstown group and one town shared by the mill at Butler and the mills of the Youngstown group. Another example is Westmoreland County, Pennsylvania, adjoining Allegheny County on the East, which was divided on the first map between the Pittsburgh mills and the Butler group of mills. On the detailed second map it appears that six towns in this county would be reached only by the mill at Dravosburg, another town would be reached by the mill at Vandergrift alone, still another would be shared by the mills at Dravosburg and Apollo, and the remaining town would enjoy the competition of the mills at Pittsburgh, Brackenridge and Vandergrift.

Consideration should also be given to the territories shown on the first map as the exclusive sheet marketing areas of a group of mills located very near each other, such as at Butler-Vandergrift-Apollo. It would appear from the first map that the competition between all these mills would exist throughout the area allocated to them as a group. The detailed map shows that this would not be the case and that frequently only one mill of the group would reach a particular town, while the majority of towns would be reached by not more than two mills. For example, seven towns in Butler County, Pennsylvania, adjoining Allegheny County on the north, would be served exclusively by the mill at Butler, and in Cambria County, Pennsylvania, five towns would be reached by the mill at Apollo alone, while three towns would be served by the mills at Apollo and Vandergrift. Similarly, in the area to be shared by the mills at Weirton-Beechbottom-Steubenville, all towns in Belmont County in Eastern Ohio would be reached only by the mill at Beechbottom, while in Jefferson County, just north of Belmont, two towns would be accessible to the Steubenville mill alone, a third would be shared by the mills at Steubenville and Weirton, and a fourth would be served by the Canton mill.

This detailed map emphasizes both the local monopolies and the arbitrary nature of the allocation of the territory for the sale of sheets which would result from a uniform f. o. b. mill price system.

A AFOLLO
B_B BEECHBOTTOM
B_R BRACKENRIDGE
B_u BUTLER
C_i CANTON
C_l CLEVELAND
D DRAVOSBURG
L LACKAWANNA
M MASSILLON
N NILES
P PITTSBURGH
SP SPARROWS POINT
S STEUBENVILLE
V VANDERGRIFT
W_e WARREN
W_e WEIRTON
Y YOUNGSTOWN
 G McDONALD

Showing towns controlled by mills producing steel sheets assuming each such mill adopts a uniform F.O.B. mill price equal to prevailing base price.



Referring again to the first map, some consideration should be given to the comparative capacities of mills and the sheet consumption in the areas served by such mills.⁷² With the exception of Detroit, where consumption is in excess of capacity, every producing point has capacity in excess of the estimated 1938 sheet consumption figures. In most cases, such excess of sheet capacity over consumption is large. For example, the capacity of the Pittsburgh mills is more than 1,500,000 tons, while the sheet consumption in areas which under the proposed pricing system would not be shared with mills in other districts is estimated at less than 78,000 tons, and the sheet consumption in the total territory which would be reached by the Pittsburgh mills is approximately 110,000 tons. The discrepancy is even more striking in the case of the Butler-Vandergrift-Apollo sheet mills, where the capacity is over 730,000 tons, and the consumption would be less than 5,000 tons in the exclusive territory under the proposed system, and less than 41,000 tons in the total territory to be reached by these mills under that system. The Weirton-Beechbottom-Steubenville mills have a rated capacity of over 1,160,000 tons of sheets, which may be contrasted with an estimated consumption of less than 7,000 tons in the territory which they would not share with other mills, and less than 55,000 tons in the whole territory to be reached by such mills under the proposed system.

While outlying sheet mills at Chicago-Gary, Granite City, and Sparrows Point, which serve nearby large consuming centers, have capacity greatly in excess of the total estimated consumption in 1938, it should be borne in mind that such mills would serve territory outside the confines of this map. In the exceptional case of Detroit, sheet capacity is rated as over 1,400,000 tons, with consumption estimated for 1938 at slightly more than 1,650,000 tons.

If 1939 consumption of sheets is estimated at twice the 1938 consumption, sheet capacity at all producing points is still in excess of consumption in the areas served by the mills at such points (which is natural since the mills were designed to supply the demand in many areas outside the confines of this map), with the exception of Detroit and Sparrows Point. The excess of consumption in Detroit is, of course, enormously increased.

The preceding discussion has been based upon the assumption of mill prices equal to prevailing base prices for sheets at the several basing points. Of course, this price structure could not endure, as the sheet mills would necessarily seek larger markets for their product. It should be emphasized, however, that the local monopolies and the arbitrary and rigid limitation of territories would prevail under any given relative level of prices. It is assumed by the proponents of the uniform f. o. b. mill price system that competition would occur over large areas as the mills sought markets. In practice, however, there are important limitations upon the possibility of this occurring. It appears certain that mills located close together would necessarily have practically identical mill prices since the difference in freight rates from such mills to consuming points is so small that a slight reduction in price by one mill would exclude mills close to it from all marketing areas, if such mills did not follow the price reduction. Thus the pattern of local monopolies shown on the detailed map would be unlikely to change to any great extent, even if the present price structure should be so altered.

There would undoubtedly be changes in the relative levels of prices for sheets at producing point groups, and prices at producing points surrounded by other producing points would naturally be lower than at the surrounding points. A small reduction in price would result in increasing a mill's territory for the sale of sheets, but in many cases the added territory would not increase the market proportionately. In order to sell sheets in any important market a mill would have to reduce its price by the amount of the freight to such market. In many cases this would arbitrarily result in wiping out or greatly reducing the selling area of other mills, compelling retaliation by them, which in turn would deprive the first mill of access to the market sought by such mill in making the price reduction. The price would be lower, with little or no real gain in marketing area.

Furthermore, mills at two or more producing points could compete, generally, at only one important consuming point at the same time. If the Pittsburgh and Youngstown mills, for example, were to quote mill prices for sheets which would enable them to compete in Cleveland, the Youngstown mills would automatically be excluded from the Detroit market, as the Pittsburgh mill price would result

⁷² Capacity figures were obtained from the 1938 directory of iron and steel mills, published by the American Iron and Steel Institute. Taken into consideration were capacities of the modern continuous mills and the modernized old type mills, the capacities of the old hand mills being disregarded. Consumption figures are the estimated consumption in 1938, on the basis of mills operating at approximately 43% of the rated capacity, and were compiled by the sales department of a subsidiary of the United States Steel Corporation. These figures, while believed to be reasonably accurate, are subject to some margin of error.

in a lower price in Detroit. Likewise, if prices at Pittsburgh and Youngstown mills were such as to result in equal competitive prices in Detroit, the Pittsburgh mills would be excluded from the Cleveland market. It is impossible to foresee what steps the mills would be forced to take to escape the procrustean rigidity of this system. The Federal Trade Commission contends that the result would be a scattering of steel producers to areas of large consumption. The catastrophic effects of such a dislocation upon producer and consumer alike have been considered at length herein. Possibly the result would be merely the installation of final finishing mills at important markets. Such a change would result in no saving in transportation costs, and ultimately could only result in higher steel prices, since costs would be enormously increased.

It should be emphasized that these maps deal with only one product—sheets. On every other product, maps prepared on the same assumptions would show similar arbitrary territorial limitations, but on each product the territories would be different, since the allocation would depend upon the location of competing mills producing the same product. Thus, a consumer wishing to purchase two kinds of products to be used together, such as structural shapes and plates, would often be forced to purchase each product from a different mill.

These maps do not attempt to picture all of the effects of a uniform f. o. b. mill price system, even with respect to sheets, but they show definitely the delicate nature of the price structure which would be imposed thereby, and the vast complexities which are involved in any attempt to impose an arbitrary pricing system. It is believed that the maps and the foregoing analysis of them establishes that competition under such a system would not be more in the public interest than it is under the basing point practice, and would necessarily result in local monopolies, in widespread dislocation of the steel industry and of industries dependent upon it, and inevitably in higher prices for steel.

(2) *Price Leadership.*—Price leadership of the kind which naturally occurs in an industry with large units and substantial inescapable costs would not be eliminated by a uniform f. o. b. mill price system. Assuming that some mills in each of the present large production districts would survive the introduction of such a system, after some period of time a sort of equilibrium would probably develop. The surviving mills would become accustomed to the normal territories which would result to them. Since the prohibition of freight absorption would prevent sales outside of these territories, the mills would gradually lose their contacts with distant customers, and would cease their efforts to sell to them. Once this condition was established an equal rise in the price at every mill would leave the selling territories unchanged and would enhance mill net returns of all the mills by the amount of the advance. The temptation to follow price increases is obvious. The mills would be more apt to follow a rise in the price at one mill, than to try to initiate sales efforts in the new areas in which their old prices were the lowest, because the mill which had raised its price would almost certainly be obliged to reduce it if the others did not follow.

For these reasons, there is no reason to suppose that a uniform f. o. b. mill price system would do away with any price leadership which may exist today. On the contrary, it seems that by reducing the number of producers and by keeping the mills out of contact with each others' customers, such a price system would increase the tendency to follow price raises by other mills.

(3) *Concentration of Production Facilities.*—One contention of the Federal Trade Commission is that uniform f. o. b. mill prices would produce more economic locations of steel mills. By "more economic" locations the Commission seems to mean that instead of the present concentrations at various points in the northeast, mills would be scattered all over the country near the various consuming territories. As a corollary, it is probably thought that supposed "uneconomic" producers at present basing points would be eliminated.

This reasoning ignores the fact that more than 4 tons of raw materials would have to be hauled to these scattered mills for every ton of steel produced. If they were located outside the northeastern United States they would be farther from raw materials than the corresponding capacity is today, and their assembly costs would be higher.⁷³ If mills were built to supply small local markets, their scale of operations would be smaller. This, too, would raise costs. Considering the low level of profits in the steel industry during the past decade, it seems clear that higher prices would be necessary to cover these higher costs. Even if the recommended uniform f. o. b. mill price system would conform to the assumptions of

⁷³ It is obvious that it is cheaper to haul one ton of finished steel a long distance to consumer, than to haul more than 4 tons of raw material a shorter distance to a steel mill, although freight rates on raw materials are somewhat lower than on finished steel products.

"perfect competition" (although it seems clear that it would not), higher prices for steel would be too much to pay for such conformity.

The same factors which prove the undesirability of scattered small mills would militate against the occurrence of any change. The capital investment per ton of steel is high, and the annual turnover is relatively low compared with many other industries. Scattered mills mean a much higher per ton investment cost than under existing conditions, and would present a serious economic danger to the industry in periods of low demand. This result is obvious from the fact that a compact, well-balanced centralized producing unit lends itself to greater flexibility as an economic operating unit than would a number of separately located mills, each of which would require the same production facilities and complement of auxiliaries, as does the one compact centralized mill.

A centralized mill, because of its greater flexibility in adjusting readily to a diversity of products, assures lowest operating costs under all conditions, tends to restrict the amount of unused capacity, and secures to employees the maximum amount of employment possible when the industrial cycle swings downward.

In the last analysis, the question of scattered mills rests on a determination of how and where the product can be made at the lowest cost—not only lowest production cost at the mill, but lowest cost of the steel delivered to the user of steel, wherever located. And in that determination, consideration must be given to (1) the cost of assembling suitable raw materials, (2) the capital investment required per ton of steel, (3) the kinds of steel products for which a market exists in the given area, (4) the probable consumer demand for such products in the particular area and the stability of that demand, (5) the freight charges involved in delivering the production to the buyer of the steel, and (6) an adequate labor supply, taking into account housing facilities and living conditions generally.

The weight to be given to each of these considerations will differ according to the kind of product that is made, and no single rule will apply to every condition. Item (1) in most cases would probably carry the greatest weight, with item (2) next in importance. The most important of the considerations have been taken into account in present locations. It is doubtful whether the other considerations would outweigh them under any system.

(4) *Excess Capacity.*—The steel industry had for some time past, until very recently, a considerable amount of idle capacity, but not necessarily excess capacity. With the sudden increase in the demand for steel products, which has coincided with the outbreak of the European war, a large part of this idle capacity has already disappeared, and the balance of idle mills are being brought into operation as rapidly as possible to meet the existing demand. When idle capacity exists, however, there is no way of telling how much, if any, thereof constitutes "excess capacity". There are many reasons for what, at times, may appear to be excess capacity, including one predominant one—the business cycle. The steel industry has capacity to supply peak or near-peak demand at the height of the cycle, as in the years 1929, 1937, and at the present time, and consequently some of its capacity stands idle during the lower phases of the cycle. The alternative is to have less capacity than the peak demand requires, thus producing a scarcity and a tremendous rise in prices during the expanding phase of the cycle. Neither condition is satisfactory. The business cycle and the other causes of idle capacity would operate even if a uniform f. o. b. mill price system were adopted.

A uniform f. o. b. mill price system probably would eliminate some producers, thus reducing to some extent the possibility of idle capacity. But no accurate estimate can be made of how much of such capacity is necessary to supply the peak demand, or whether the proposed system would eliminate just the right amount, or at the right place. Any substantial reduction in capacity would probably leave less than is required for peak demand, and the equally undesirable alternative of rapidly rising prices would then occur as demand increased in the upward course of the cycle.

Thus, a uniform f. o. b. mill price system, if it had any effect at all on the amount of steel capacity in the country, would probably cause extremely large fluctuations in prices, which are as undesirable as idle capacity. There is no reason to suppose that it would produce any better working results than the basing point method.

(5) *Price Discrimination.*—The suggested uniform f. o. b. mill price system, by definition, would do away with variable mill net returns. It would accomplish this, not by removing the causes of the present variation in such returns—the location and geographical separation of producers, the wide distribution of consumers, the large size of economical and efficient steel mills—but by an arbitrary prohibition. The artificiality and rigidity of the situation which would result have already been discussed.

(6) *The Cost of the System.*—In considering any alternative to the basing point practice, one vital question is how much the alternative will cost economically. Even could it be shown to be better in some ways than the present method, if it would cost the public more than the benefits resulting from it are worth, it would not be wise to adopt it. The above criticisms of the uniform f. o. b. mill price system have shown that it involves definite economic costs. It would destroy the investment in many plants. It would also act injuriously on many local communities whose welfare is dependent upon the steel mills at that point. It would not eliminate shipments from other than the nearest mills. It would probably result also in widespread dislocation of consumers who have located their manufacturing establishments in reliance upon existing steel mills. It might eliminate some idle capacity, but it would not necessarily be high-cost capacity, and this change would probably produce, in the course of the business cycle, another phenomenon as expensive and as undesirable as idle capacity. All these are economic costs which it appears would follow from a uniform f. o. b. mill price system.

The only corresponding saving which would result from a uniform f. o. b. mill price system would be in its elimination of a certain amount of transportation costs. As has been pointed out, it is impossible to estimate the amount which could be saved, but in any case such amount is not the whole amount of freight absorption under the present pricing method.

SUMMARY

The basing point practice in the steel industry is a simple method of quoting delivered prices, which results in the competition of many geographically separated steel producers at the markets for each of the diversified products of modern steel mills. It is not a price-fixing medium nor does it result in high prices. It does not stifle price competition but rather extends the benefits of such competition to all consumers.

This basing point practice has evolved over a period of more than half a century to meet fundamental economic conditions in the steel industry. Delivered prices result from the buyer's need to know the cost to him of steel delivered at his plant, since transportation charges from mill to consumer are often a substantial part of the value at the place of consumption.

The producer of steel must take into consideration all of the elements of cost involved, from the transportation of raw materials, through the processes of converting such raw materials into steel products, to the final delivery of such products to the consumer. It requires more than four tons of raw materials to produce one ton of finished steel. The location of facilities for producing pig iron and steel ingots must be determined largely by the factor of raw material assembly cost. This limits the location of blast furnaces and open hearth furnaces to a few areas where the raw materials are readily available. In turn, the economies of integration cause the location of rolling mills near the steel producing units. Large well-integrated mills, designed to supply the scattered markets of the entire country, have been constructed in such areas. These mills produce many diversified products in order to utilize ingot capacity to the fullest extent and achieve low production cost per unit. A modern integrated mill must serve more than its immediate area; it must reach many of the important markets for its diversified products in order to obtain an even flow of orders. Thus, concentration of production facilities in a few areas and wide distribution of products is a rule in the steel industry enforced by economic considerations. The result is competition at all consuming points between several geographically separated producers.

The demand for steel is subject to enormous fluctuations in the business cycle. The capacity of the industry, including reserve capacity, is not more than sufficient to supply the needs of the country during periods of high demand, such as 1929, 1937 and the present time. Less capacity would result in scarcity and high prices during such periods. The problem of adjustment to the fluctuations of the business cycle is solved in the most economical way. While the industry is constantly constructing new facilities to incorporate technological advances, the older mills which, although outmoded, have not served their full useful life, are retained in reserve to meet the demand at high levels of consumption.

Most criticisms of the basing point method disregard entirely these fundamental economic facts. The steel industry is often judged by criteria derived

from abstract theory, based upon imaginary conditions which cannot exist. Natural deviations from these criteria are arbitrarily assumed to be evils and are, without demonstration, ascribed to the basing point method. Critics sometimes rest their case solely upon bland assertions and rhetorical exaggeration. In many instances, mere name-calling is resorted to. Thus, in the language of some critics, the practice of meeting competitive prices at a distance becomes "freight absorption"; the resulting difference in mill net returns becomes "price discrimination"; the resulting shipments from other than the mill nearest the destination becomes "cross-hauling"; and the realization of a competitive advantage due to superior geographical location becomes "phantom freight."

Competitive forces determine the prices quoted at all destinations. To obtain business in a market at a distance from his mill, a producer must meet competitive prices quoted by other producers nearer to such markets; he must pay the freight necessary to transport the steel product to the consumer; and he will therefore realize a lower mill net return than on sales to consumers nearer his mill. This enables him to operate his mill at a lower unit cost and thus to sell to the nearby consumer for less than he otherwise could.

There will always be some shipments of similar products past each other in opposite directions unless competition between geographically separated producers is arbitrarily limited to the marginal territory between their mills. Even under the uniform f. o. b. mill price system proposed by the Federal Trade Commission, shipments would not always be made from the nearest mill. The alleged economic waste resulting from cross-shipments must be balanced against the countervailing advantages to the public of a competitive system, and also against the economic losses which would follow from artificial limitation of marketing territories.

If an isolated producer is located nearer than other producers to an important market, he will be able to realize a higher mill net return. In so doing, he may be merely taking proper advantage of his superior geographical location, or he may need such higher return to compensate for his additional costs in assembling and processing raw materials. He can obtain higher mill net returns than some of his competitors either by announcing a higher price at his mill, or by merely meeting the competitive delivered prices of other producers. Characterizing the latter practice as the collection of freight charges which are not paid is a distortion of the facts.

Transportation of steel products by water vehicles and trucks has received attention unwarranted by its true importance, and significant factors in the situation have been overlooked. The practical availability of each of these mediums of transportation is circumscribed by many inherent limitations. The producer located so as to be able to transport some products by water has an advantage over other producers not so located, which he is properly entitled to realize by a higher mill net return. His advantage often lies merely in the ability to reach markets from which rail freight rates would bar him. Where all the circumstances warrant it, the advantage is passed on to consumers by lower delivered prices. The producer's advantage, however, is one which may easily turn into a disadvantage. If he gives one consumer the benefit of the saving resulting from water transportation, he may soon have to make the same price to all consumers in the area and ship by rail, with freight disadvantages which will lower his mill net returns. Shipment by truck seldom involves an appreciable freight saving, and often involves additional freight cost. The added expense and inconvenience to the producer in truck shipments justify any additional charges made.

The proposed alternative to the basing point method is a uniform f. o. b. mill price system. The effects of this system would be extremely complex, and are therefore largely unforseeable. Its exponents propose it in the name of abstract theory, and have outlined its characteristics and effects only with respect to the elimination of supposed evils of the basing point method. They have never described the operation of the system nor analyzed its effects in relation to the economic facts of the steel industry.

The uniform f. o. b. mill price system is expected by its exponents to eliminate high cost, inefficient and supposedly uneconomically located mills and to break up concentration of production facilities, by forcing the erection of small mills in all parts of the country. Such results, even if they would be accomplished by the system, would conflict with basic economic factors, and necessarily increase present production and transportation costs.

The system is also expected to produce theoretical "perfect competition", or at least to increase competition. This is to be accomplished by the extraordinary means of arbitrarily limiting the competition between mills not adjacent to each other to marginal territory. Each mill, or group of mills, would be restricted in distribution to a circumscribed area subject to only slight possible variations in size. Each customer would be confined to a single or a very few sources of supply. The capacities of mills would be limited to the consumption in the prescribed territories, and any existing additional capacity would have to be scrapped. Serious dislocations in the steel industry and in industries dependent upon it would be inevitable.

Under a uniform f. o. b. mill price system, local monopolies and high assembly and production costs would displace the present wide-spread competition and low costs.

AN ANALYSIS OF THE BASING-POINT SYSTEM OF DELIVERED PRICES AS PRESENTED BY UNITED STATES STEEL CORPORATION IN "EXHIBITS NOS. 1410 AND 1418" ¹

By

Walter B. Wooden, Assistant Chief Counsel, and Hugh E. White, Examiner,
Federal Trade Commission

INTRODUCTION

The statement which is submitted herewith is in reply to two printed pamphlets offered by the United States Steel Corporation and in which appear its defense of the basing point system used in the steel industry. One is entitled "The Basing Point Method of Quoting Delivered Prices in the Steel Industry" (Exhibit 1418 for identification). The other is entitled "Some Factors in the Pricing of Steel" and contains a section on the basing point system. (Exhibit 1410 for identification.) Other pamphlets offered by the Corporation and which contain statistical data regarding prices, consumption, costs, and profits, are not encompassed by this statement. The two pamphlets are presented as the statements of the Corporation and their individual authors are not identified.

These two pamphlets raise only a few fundamental issues of fact. They likewise raise comparatively few fundamental issues growing out of the Corporation's theoretical treatment of its factual material. The fundamental factual issues may be grouped under two heads:

1. Whether the objections to the basing point system in the iron and steel industry are founded upon "abstract criteria" as alleged by the Corporation, or upon tangible legal evidence of collusive restraints upon competition.

2. Whether, and what, collusive methods of restraint upon competition are involved in the industry's use of the basing point system.

The fundamental theoretical issues may be grouped under three heads, as follows:

1. Whether the industry's use of the basing point system is consistent with the economic concepts of a competitive economy or conform to those of monopoly.

2. Whether the industry's use of the basing point system is at variance with public policy as declared in the antitrust laws.

3. Whether the industry's continued use of the basing point system should be permitted in the public interest.

In this last connection, a collateral but important factual issue to which certain misstatements of the Corporation compel attention concerns the nature of the Federal Trade Commission's position regarding the basing point system in the iron and steel industry and regarding the possible alternatives to that system.

Such issues cut deeply into the fields of law, of economics and of political science. The quite numerous incidental issues of fact and theory which are involved will not be ignored but they should not divert attention from the fundamental issues as above formulated and to which they are all subordinate.

At the outset, a statement of the Corporation will be quoted which may be taken as a common ground of approach. In the pamphlet entitled "Some Factors in the Pricing of Steel", it is stated by the Corporation:

"Price competition is necessary in any industry operating in a capitalistic system. Is the steel industry competitive? Efforts at such determination can easily lead into the realms of economic sophistry. Criticism and defense of competition in the industry should not be based on abstract criteria which fail to take into account the fundamental phenomena involved; it should be based on tangible evidence". (Exhibit 1410).

After disposing of the issue whether "tangible evidence" exists for objections to the basing point system as distinguished from "abstract criteria", an analysis

¹ Exhibit No. 2242, hearings before T. N. E. C., Part 27, p. 14548.

of the economic defenses of the system as presented by the Corporation will be undertaken. In the course of that analysis it may be possible to determine whether the system's defenders have successfully avoided the admittedly easy descent into the "realms of economic sophistry".

The Corporation recognizes throughout its argument the necessity of clinging to the contention that the system does not involve or facilitate monopolistic practices, however essential either to the public or private interest it may believe such practices are. Once that basic factual contention is discredited or destroyed the system must then be defended in the field of untenable theory. Considering the purposes, effects and methods involved, in the system, as shown in the Pittsburgh Plus case and in published reports of the Federal Trade Commission during the N. R. A. and since, it might well be thought that the factual exposition has already been ample. If debate as to the competitive or monopolistic status of the system can be prolonged indefinitely, the system will doubtless be continued as long as those who employ it and defend it find profit in it. It is to be hoped that the last word on the factual side of the matter can be said before the Temporary National Economic Committee and that the only question remaining will be one of governmental policy.

Before any intelligent appraisal of the basing point system can be made it is necessary to bear in mind certain of its essential features. It is a formula method of pricing, which when appropriately implemented and observed, automatically produces identical delivered prices for all sellers at any given destination. Its success depends first of all upon a common requirement by each seller that purchases be made only at delivered prices and a common refusal to quote or sell f. o. b. mill. Each delivered price is calculated from some governing basing point and has no necessary relation to the actual shipping point. The actual cost of transportation may be greater or less than the amount used to calculate the delivered price. Non-basing point mills are enabled to and must, if the system is to function, take advantage of their location by adding the full amount of their freight advantage, sometimes called "phantom freight", to the basing point price. Basing point mills are enabled to realize their full base price and sometimes "phantom freight" in territory where their respective basing points control the delivered prices. (Ex. 1418.) Other mills, whether basing point or non-basing point mills, that quote in each such territory, must, if the system is to function, recognize and adopt the governing base price and the delivered prices calculated thereon. Just as identical delivered prices automatically result from the system, so wide variations in the prices realized by each mill from its various customers are the automatic result. Each result is the necessary complement of the other.

All the above factual features of the system are expressly admitted by the Corporation in its pamphlet, though in different words and with different emphasis. There are important methods of implementing the system which will be discussed later and which also cast a significant light upon the system's competitive or non-competitive status.

THE BASIC ISSUE IS WHETHER THE BASING POINT SYSTEM OF IDENTICAL DELIVERED PRICES IS COMPETITIVE OR MONOPOLISTIC

The irreconcilable nature of the issue is made clear by the Corporation's position. The foreword of its pamphlet entitled, "The Basing Point Method of Quoting Delivered Prices in the Steel Industry" (Ex. 1418, for identification) states that one purpose of the pamphlet is:

"To establish that this pricing method is the natural result of basic economic conditions in the steel industry and does not result in the absence of price competition. The delivered prices of steel products at any consuming point are determined by competition and not by an inflexible application of the basing point method."

Again the Corporation states:

"Since delivered prices are the principal concern of the buyers, competition between steel producers naturally takes the form of meeting the others' delivered prices." (Ex. 1418.)

Such contentions are made again and again in specific terms and are implicit throughout the argument. Repeatedly it is urged that objections to the system are wholly abstract and theoretical in nature and are without foundation in tangible evidence. Indeed, it is never admitted that there is anything systematic about the basing point system and the word method is systematically substituted for the word system. By contrast, whenever reference is made to a mill base method of pricing, the word system is systematically applied. However, Mr.

Eugene Grace, President of the Bethlehem Steel Corporation, in his testimony before the Temporary National Economic Committee thought "system" was a good word for describing the pricing methods of the steel industry, and testified that the basing point system was the one used for quoting steel prices. (Verbatim Report T. N. E. C. Hearings November 9, 1939, p. 287.)

At this point it is well to understand the concept of competition which permeates the Corporation's position. In essence it is that unless all sellers make an exactly equal offer in terms of price to a given buyer they are not competitive. For example, it is stated:

"Identical delivered price quotations would occur under any free competitive system to the extent that competitors' bids could be estimated, since buyers refuse to pay more to one producer than to another for a staple product." (Ex. 1418.)

This is equivalent to saying that no competitors under any free competitive system would quote at less than they estimated their competitors were going to quote. In similar vein, the Corporation quoted from a report by N. R. A. to the effect that if a competitor with lower freight costs gives his customer any benefit "he is giving a lower price than competition forces him to give. In other words, he is following some sort of a non-competitive principle, rather than a competitive one." (Ex. 1418.) This is equivalent to saying that a competitor who makes a lower delivered price than his rival is acting non-competitively and when he gives him the same delivered price he is acting competitively.

The above contentions of the Corporation should be considered in the light of the testimony of Mr. Robert Gregg, Vice-President of the Corporation before the Senate Committee on Interstate Commerce in March, 1936. He testified that the basing point system had been the general merchandising plan in the industry and that:

"If that plan were universally followed there would be no competition insofar as one element of competition is concerned, namely, price." (Hearings on S. 4055, p. 207.)

If, as Mr. Gregg, testified, there would be no price competition if the system were universally followed, then deviations from the system represent price competition. Yet, under the quotations from N. R. A. deviations would embody some non-competitive principle. If one accepts the quotations, and Mr. Gregg's statement also, then the basing point system and departures from it are both non-competitive. On the other hand, the Corporation disputes Mr. Gregg by claiming that the system expresses price competition and treats the deviations from the system which have occasionally occurred throughout its history as sufficient in character and extent to justify the system itself.

The Corporation quoted from a report of N. R. A. as follows:

"The outstanding characteristic of the basing point system is the fact that it puts rival producers on a footing of price equality with each other in all the consuming points over a wide area * * *." (Ex. 1418.)

The Corporation also quoted from the N. R. A. report to the effect that the basing point system facilitates the use of the open price system of price quoting and that:

"This system is openly defended as a means of putting competition on a basis which will yield higher prices than would result without it." (Ex. 1418.)

The Corporation further quotes from the N. R. A. report to the effect that while an open price system could be used with any kind of a price structure "it has its fullest effect if each producer knows the delivered prices he has to meet at each purchasing point." (Ex. 1418.)

A pricing method which is systematically followed by competitors for the purpose and with the effect of getting higher prices is plainly at variance with the common experience that competition does not tend to produce higher prices.

THE OBJECTIONS TO THE BASING POINT SYSTEM ARE GROUNDED UPON TANGIBLE LEGAL EVIDENCE OF COLLUSIVE PRICE CONTROL AND NOT UPON ABSTRACT CRITERIA

A striking feature of the Corporation's defense of the basing point system is its almost complete reliance upon abstract criteria and abstruse theory plus some irrelevant facts. At the same time, it charges that objections to the system are wholly grounded in such criteria and theory. It ignores the tangible evidence which has been cited over the years to sustain the main objection, which is that the system suppresses price competition and is monopolistic.

A review of such evidence should make it clear that from the time the system became the complete framework of the industry's price structure down to the present it has been a device invented for the purpose of producing identical delivered prices and perfectly adapted to that result. Notwithstanding occasional deviations and changes in the number of basing points used as well as in base price differentials, the system has not changed in essence. The American Iron & Steel Institute publicly declared in March, 1935 that the basing point method of quoting prices then in use was "in principle the same method under which the modern steel industry has operated for more than forty years." ("Basing Points and Competition in Steel", March 13, 1935, p. 5.) In reviewing the evidence, however, the period which began in 1933 with the N. R. A. Code of the Iron & Steel Industry and has continued to the present, is obviously the most important. Preceding periods are important as a matter of historical continuity of purpose, methods and effects. For that reason, the evidence lying within the present period will be first reviewed.

(a) *Continuation of Specific Agreements Formulated During N. R. A. Code Period.*

The Code of the Iron & Steel Industry, as adopted in 1933, specifically incorporated the basing point system among its provisions and specified the basing points themselves. It also incorporated numerous and detailed provisions designed to make the system thoroughly effective. The Code itself declared that "each member of the Code by becoming such member agrees with every other member thereof that the Code constitutes a valid and binding contract by and among all members of the Code". The Board of Directors of the American Iron & Steel Institute was the Code Authority which was intrusted with and exercised the functions of enforcing, administering, interpreting and applying "the standards of fair competition" incorporated in the Code. Among the activities of the Code Authority was the promulgation of numerous so-called commercial resolutions which embodied rules and regulations designed to implement the Code's objective of creating perfect identity of delivered prices. Members of the Code who did not comply with the provisions of the Code and the rules and regulations established under it, were fined at the rate of \$10 per ton for each violation, as the Code itself provided. In the Federal Trade Commission's report to the Senate of March, 1934, and its report to the President in November, 1934, documentary evidence from the files of the Institute and of the steel producers was quoted and analyzed in great detail establishing the above facts. Among other things, that evidence demonstrated that the Code constituted an agreement among steel producers whereby producers freely collaborated with each other as to the base prices they were to use; that the Code compelled adherence to such prices; that concessions and additions to the base prices were permitted only to the extent prescribed by the Institute's Board of Directors; and that all rail freight from the applicable basing point must be used in calculating delivered prices, except as otherwise provided for by the Board of Directors.

On June 3, 1935, almost immediately after the invalidation of N. R. A. Codes by the Supreme Court, the Board of Directors of the Institute adopted a resolution declaring the intention of each member to maintain "the standards of fair competition which are described in the Steel Code". (F. T. C. Report to the President on Steel Sheet Piling, June 10, 1936, p. 3.) On June 6, 1935, the resolution was ratified by steel producers representing over 90% of the producing capacity. On June 17, 1935, the Executive Secretary of the Institute wrote its president, Mr. Eugene Grace, urging that the Institute go as far as possible within the law to develop a plan for stabilizing the industry and maintaining conditions of fair and open competition. The Secretary said that he was "convinced that the 'wage floor' alone, especially in view of its present voluntary basis, will not prove adequate for very long to support a structure of fair commercial practices, and that external pressure from buyers of steel and the corrugating effect of rumors, suspensions, or actual overt acts from within present a constant menace which seems certain sooner or later to topple the structure." The Secretary went on to say:

"I do not believe that the much discussed 'competitive system' is really operating as it should, when a minority can in effect rule an industry by its wage policy or its commercial practices. I do not believe, for example, that Bethlehem should be regarded as 'free to compete' in the true sense of that term, when the acts or policies of some other steel company might force Bethlehem into meeting a situation with practices which it knows to be unsound".

The Secretary thereupon urged that—

"We must devise some plan of action in the form of an agreement which will permit wise management in the industry to prevent, so far as possible, practices

which lead to inroads on wages of labor, destruction of profits, and impairment of capital."

Mr. Grace, in acknowledging the above letter on June 20, wrote that he would try to discuss orally the "big and important subject" in the near future and "of course I shall not attempt to make answer in writing." On January 4, 1936, Walter S. Tower, executive secretary of the Institute, wrote to Mr. Grace, President of Bethlehem Steel Corporation and President of the Institute, as follows:

"Since the meeting here a fortnight ago, I have been giving a good deal of thought to the subject then discussed, in an effort to figure out some constructive course of action which might be considered at the meeting scheduled for January 14.

"It now seems necessary to admit that any such sort of procedure as that which has been followed since the meeting of representatives of the steel industry on June 6, 1935, cannot be relied on to create or to maintain the conditions required for a satisfactory commercial policy in the industry.

"It also seems necessary to recognize that the experiences of the last six months prove the need for some definite kind of procedure under which the details of commercial policies and practices of the principal members of the steel industry will be matters of record. I realize, of course, that it does not necessarily follow that there would be no further difficulties with which the industry would have to struggle, if such policies and practices were fully and freely matters of common knowledge to both producers and purchasers of steel products generally. But it does seem to me that the only way, if there is any way, to create satisfactory conditions, and to confine the commercial problems within the limits where they may not prove disastrous to the industry, is to be found through the medium of some complete record of what are the commercial policies and practices of the leading companies in the industry.

"Recognizing the fact that the commercial provisions of the Code are now a closed book, there appear to be only two ways in which, without too serious legal liabilities, there can be any general or open record in respect to these vital matters. The first of these ways is to follow the recommendation which you made some months ago concerning the publication by important members of the industry of formal lists of prices for their respective products, together with statements of the extras applicable and terms and conditions of sale. I still think that adopting your suggestion would help more than anything else which now seems permissible, to correct the difficulties of which the entire industry is fully aware. It also seems to me quite possible that if a group of several of the prominent companies decided to follow such a policy, none of the other prominent producers could long afford not to fall in line, if for no other reason than the implications arising from the failure of any prominent company so to declare itself publicly in respect to prices and commercial practices.

"The other way of establishing a general or open record would be through reporting to some central agency, like the Institute, the facts in regard to closed transactions in which any new concession had been granted to a purchaser in respect either to price of a product or the terms and conditions under which it had been sold."

That a plan for such a system of tacit agreement to abide by announced prices was being discussed in the industry is made evident by a letter to E. T. Weir, National Steel Corporation, written on January 16, 1936, by Charles R. Hook, president of the American Rolling Mill Company:

"As I remarked when I came into the meeting of our little group last Tuesday, I had not known whether I was going to be there as I had taken Mrs. Hook to the Johns-Hopkins Hospital the week before and while I was waiting at the hospital I wrote out a note to E. G., had it typed, and intended to send it in case I could not be at the meeting.

"I took the letter along with me and laid it on the desk, if you remember. I am enclosing herewith a copy for your information."

The enclosure reads in part as follows:

"* * * It seems to me useless to attempt to cure the general ills of the steel industry until we make up our minds that we will courageously and definitely resist the pressure of the automotive or any other large consuming industry to break down a price structure that will permit of a reasonable return on our invested capital.

"A decision to make such a stand can only come, of course, if as and when the major steel companies make up their minds that their price schedules are an open book, that all purchasers are to be treated alike and that undercover methods of all kinds are outlawed completely. If any industry or any company is to be given a price better than the carload price, it must be known by all and it must be a defensible practice that can be shown to be in the public interest."

The trade magazine "Steel", in giving a resume of developments in the industry about this time said:

"March 1936. After sharp competition as an effort at stabilization, steel makers announced all prices quoted would be 'open', and uniformly applied, agreeing to publish price changes whenever made. This continued up until the recession set in." (Steel, July 18, 1938, p. 24.)

The "Iron Age" in summarizing the developments of the year 1936 referred to price concessions in the early part of the year and then described the initiation of a method of open price announcement which it characterized as "the most successful price stabilizing movement the steel industry has experienced, other than the Steel Code." It stated that the movement was initiated by T. M. Girdler, President of Republic Steel Corporation at the time of making its announcement of prices for the second quarter. The Iron Age also states that other steel companies followed the Republic's example and announced openly their selling prices with the result that the last three quarters of 1936 were "remarkably free from price cutting, either open or secret, the general understanding between steel companies and their customers being that any change in published prices would be similarly announced." (Iron Age, January 7, 1937, pp. 65-66.)

In May, 1936, the Carnegie Illinois Steel Corporation informed its various sales managers that it would "begin our price announcement program" by announcing prices on certain commodities. It sent its various managers an initial supply of price announcement forms quoting prices at various basing points. The sales managers were also informed that the usual practice of adding published all-rail freight or using arbitrary rates as established would be followed, and that only delivered prices would be quoted. It said that after making such announcement of prices it was obligated by the Clayton Act to abide by the announced prices without any deviation. (Letters to sales managers dated May 21 and May 23, 1936). The price announcements then made by the Carnegie Illinois Steel Corporation were to the effect that "until further announcement, the following price will apply on sales of the product or products described below, for delivery and consumption in the United States, for shipments during the calendar quarter ending September 30, 1936."

The foregoing facts should be considered in connection with the opinion of the Supreme Court in the Sugar Institute case, where it held that there should be no requirement of adherence to prices and terms announced.

While the above developments were taking place in the industry during 1936, there is evidence that prices were the subject of discussion at meetings of the American Iron and Steel Institute.

The executive secretary of the American Iron and Steel Institute wrote to Norborne Berkeley of the Bethlehem Steel Corporation on April 22, 1936:

"In line with our conversation last week, I jotted down some random notes concerning some aspects of prices which might be worth while discussing at the institute meeting on May 28 * * * I hand them on to you for what they may be worth."

Eugene Grace, president of the Bethlehem Steel Corporation and of the Institute wrote to the executive secretary on the following day:

"I have your letter of April 22, enclosing notes on prices. I have an idea Joe expects to see you this week. I had a talk with him in line with our discussion, and shall of course let him see the notes."

When the Federal Trade Commission, at the request of the President, investigated identical bids on steel sheet piling received by the Federal Government some months after the N. R. A. Codes were invalidated, it found that such bidding resulted from a continued application of the basing point system supplemented by cooperative activities of competitive bidders similar to those which had characterized their activities during N. R. A.

During N. R. A. the Steel Code lodged in the board of directors of the American Iron and Steel Institute the authority to prescribe rules and regulations for implementing and carrying into effect the provisions of the Code. Under that authority the Board of Directors adopted and promulgated many rules and regulations to govern pricing methods in the industry and which it entitled Commercial Resolutions and Regulations. Many of these regulations directly and substantially affected such matters as the method of calculating base prices and discounts therefrom, the methods of calculating delivery charges and the exact amounts to be added to base prices in order to determine delivered prices. The Federal Trade Commission described many of these rules and regulations in its report to the Senate of March 1934 and in its report to the President of November 1934.

As already stated, the Code declared itself to be an agreement among the members and violators were penalized at the rate of \$10 per ton. When the Institute's Board of Directors voted in June 1935 to continue the provisions of the Code regarding standards of fair competition these commercial regulations were also continued in effect. In a recent letter to the Executive Secretary of the Temporary National Economic Committee, the Corporation states that it is aware of no amendment or modification of these resolutions since June 1935. (Letter Dec. 18, 1939—U. S. Steel Corporation to Mr. Jas. R. Brackett). The Corporation pamphlet (Exhibit 1418) describes two of the more important of these Commercial Resolutions as being representative of the current general practice of the industry.

One of these practices involves the addition of arbitrary switching charges for delivery in the switching limits of basing point cities, the Corporation stating that "The practice has generally been followed since the Code." (Ex. 1418.)

The Corporation states further that—

"Under the Code the practice was developed of adding to the base price a so-called 'switching arbitrary' of $2\frac{1}{2}\text{¢}$ a hundredweight (3¢ a hundredweight in Chicago and Gary switching limits) for delivery within the switching limits." (Ex. 1418.)

These figures correspond exactly to the figures provided for in Commercial Resolution No. 20 which was described by the Federal Trade Commission in its report to the Senate (See pp. 23, 24). Resolution No. 20 recited that because of the "great diversity" in switching charges at various basing points it was "practically impossible in most cases" to ascertain in advance of shipment the correct charge and that it was deemed advisable "to use arbitrary, in lieu of the actual, switching charges in such cases." After setting forth the arbitrary charges described by the Corporation as still in effect, the Resolution gave members permission to deduct from their base price an amount equal to the difference between the actual and the arbitrary switching rates in cases where the actual rates exceeded the arbitrary rates. This was provided for to insure "uniform practice." Incidentally, the Corporation admits in this connection that where the arbitrary switching rates exceed the actual the mills to that extent realize "phantom freight."

The Corporation also states:

"A practice generally exists in the Steel Industry of including in the delivered price to a buyer, who accepts delivery by sending his own truck to the mill, the rail freight from applicable basing point to destination, and allowing him a credit equal to 65% of the rail freight from mill to destination. This might be construed to mean that the buyer always pays one-third of the rail freight used in calculating the delivered price for the privilege of taking delivery by his own truck. This is true, however, only when the mill is at the basing point freightwise nearest to the buyer's destination." (Ex. 1418.)

The above described practice originated in Commercial Resolution No. 8 E adopted by the Institute's Board of Directors during the Code period as described by the Federal Trade Commission in its report to the Senate in March 1934 (pp. 32-35). The Commission also described and quoted the written protests of concerns within and without the industry, as to the damaging and destructive effects of this rule upon their business. Buyers as large as the Buick Motor Co. protested the rule as preventing it "from getting the full benefits of competitive transportation, imposing higher costs and tends to control the method of shipment." Other objections were by smaller concerns which described the rule as imposing "a terrific penalty", as giving advantages to large plants with spur tracks, as penalizing "firms having an investment in their own transporting equipment", and as severely damaging to trucking companies. This is illuminative of the question whether the objections to the basing point system are founded on "abstract criteria" or on "tangible evidence".

In view of the admission that there have been no amendments or modifications of the Commercial Resolutions since June 1935, the price fixing nature of some of them is pertinent. On pig iron delivered at certain specified points on the Ohio River and tributaries, on the Great Lakes and North Atlantic seaboard, the Institute's board of directors authorized certain maximum deductions from the delivered prices calculated on an all-rail basis from the applicable basing point to destination (Resolution No. 43). The board also fixed by resolution a maximum deduction of 38 cents per ton from the base price which could be made on Southern Foundry pig iron of a certain quality (Resolution No. 10). This deduction was allowable on pig iron shipped outside the Birmingham and Southern wage districts. The "Iron Age" for January 13, 1938 carries a note to the effect that delivered prices on Southern pig iron for shipment to Northern points are

38 cents a ton below delivered prices from nearest Northern basing point on iron with a certain chemical content. By another resolution the board fixed the maximum deductions from the base price on specified products which were permitted when sold for delivery in a specified portion of Michigan (Resolution No. 13). Other resolutions or regulations adopted by the Board fixed the maximum deduction that might be made from base prices on hot rolled strip steel (Resolution No. 40), the maximum discounts for early payment of invoices (Resolutions 1, 2, 3, 4, 9, 25, 30, 31 and 32), the amount of discounts to various classes of buyers and to jobbers, and the prices to be charged by jobbers on resale (Regulation Nos. 1, 2, 3), and the qualifications under which a concern could be recognized as a jobber (Regulation Nos. 1, 3).

The continuation of the agreements embodied in the resolutions relating to terms and conditions of sale is shown by the following:

On August 7, 1935, the executive secretary of The American Iron and Steel Institute wrote to J. M. McComb, vice-president of the Crucible Steel Company of America:

"* * * It has been my understanding that the action taken by members of the industry at their meeting on June 6 committed each of the companies there represented to a policy of maintaining the terms and conditions of sale which were in effect under the Steel Code. As far as information has come to us since that meeting, it appears that members of the industry generally are following a uniform policy in respect to such matters. For that reason there has not been any discussion of action by the Board along the line suggested in your letter."

Further correspondence between the executive secretary and Mr. McComb shows that an investigation was being made as to the extent to which members of the industry were conforming to the requirement of charging interest on past due accounts.

Under the Code there was also a requirement that in case of products sold for fabrication in construction of an identified structure, the place of delivery should be considered to be the railroad freight station at or nearest the place where the structure was to be erected. In its report to the Senate in March, 1934, the Federal Trade Commission pointed out the damage done by that requirement to independent fabricators in their competition with fabricators controlled by integrated steel producers. (R. pp. 24-26.) Price announcements put out by various steel producers, including subsidiaries of the Corporation, as late as the summer of 1936 showed that this rule regarding sales for identified structures was still being adhered to.

The nature of all the above rules and regulations was pointed out by the Commission in its report to the Senate. (Report pp. 10, 22, 36, 37, 38, 39). All of them are directed to serving the primary objective of the basing point system as defined by Judge Gary, that "it was deemed necessary for the orderly conduct of the business to have one basing price * * * so that every user of steel all over the country bought and used his steel on a certain basis, knowing in advance that every one else who bought steel had to pay exactly as he did, with the addition of the increased freight depending upon where he wanted to use the steel." (F. T. C. Decisions Vol. VIII, p. 33.)

(b) *Recent Collaboration Among Competitors on Base Prices.*

While the N. R. A. Code was in effect, abundant documentary evidence was available in the form of letters, memoranda and minutes which showed that competitors within the industry interchanged information and opinions with a view to adopting and announcing base prices that would be satisfactory to the various organized groups whose members manufactured like products. The Code, however, did not specifically provide for any such cooperative activity among competitors but was patently constructed upon the assumption and expectation that base prices at the respective basing points and for the respective products would be identical for all producers, as in fact they were.

In view of the acknowledged price leadership of the Corporation, collaboration among competitors on base prices is not indispensable to the operation of the basing point system but seems to have existed nevertheless. Such collaboration contributes to successful price leadership by promoting better feeling and insuring a greater degree of voluntary support for the prices named.

The full story of competitive collaboration in the determination of base prices since N. R. A. is impossible to develop, protected as it is by reticent memories and the natural paucity of documentary records. Occasionally, however, the veil is lifted, as in the following extract from a letter written by the general sales

manager of the Newport Rolling Mill Company of Newport, Kentucky, to the President of that Company under date of August 17, 1935. He said in part:

"It was not definitely decided until late last evening to put into effect for fourth quarter a one price policy allowing the galvanized sheet price to remain at \$3.10 per 100 lb. for No. 24 gauge base f. o. b. Pittsburgh. A few of the larger interests such as Weirton and Inland were in favor of reducing the price to \$3.00 base for No. 24 gauge f. o. b. Pittsburgh but this was finally defeated and it was agreed to allow all prices to remain the same as now in effect.

"The announcement of no further jobber allowance after October 1st will be made by Continental on Tuesday of next week, after which all mills can announce likewise. We, of course, in the meantime will notify our people, which will no doubt be conducive of causing an influx of jobber business for shipment prior to October 1st. * * * I discussed the automotive situation with Neil Flora last evening and he informed me that while some little tonnage was placed several weeks ago, nothing more has been done and that all the mills are holding firmly to their prices and are expecting that additional tonnages will have to be placed soon."

From the above it is clear that the galvanized sheet producers decided by majority vote not to reduce base prices for the succeeding quarter, although such reduction was favored by two of the large independent producers. It is also apparent that at the same time it was decided to make only one price on galvanized sheets, to eliminate special prices to jobbers, and to follow the lead of the Continental Company in announcing the withdrawal of jobber allowances.

Mr. Eugene Grace, President of the Bethlehem Steel Corporation, the second largest producer in the industry, testified before the Temporary National Economic Committee in November 1939 that he "would feel free to tell any of my tin plate competitors at any time if I thought the price of tin plate was too low, and try to encourage them in some way or other to get a price for it; of course I would. I would be foolish if I didn't." (Verbatim Record, T. N. E. C. Hearings, November 9, 1939, p. 291). Mr. Grace further testified that if he happened to meet Mr. Fairless, President of the Corporation, "and we were approaching the tin plate season, it would be a perfectly natural thing for me to say, 'Well, Mr. Fairless, I would like to see tin plate raised somewhat for this next year's business' or 'Conditions have changed in such a way that the present price would be entirely satisfactory'. I wouldn't hesitate to talk about it at all with him." (Verbatim Record, T. N. E. C. Hearings, November 9, 1939, p. 291).

Mr. Fairless also testified before the Committee that he did not "want to be in the position of attempting to leave the impression that no manufacturer of tin plate ever asks me or discusses with me what the price of tin plate is," but specifically denied that he had ever had a group meeting with other manufacturers of tin plate to set the price (Ibid, November 8, 1939, p. 256). Mr. Fairless also testified (Ibid, Nov. 7, p. 221) that steel producers discussed prices when they met and that "usually we are bemoaning the fact that they are too low".

The above testimony is to be weighed in the light of their denial that there was any conference of steel company officials to determine the price of tin plate for 1938 and that Mr. Grace of the Bethlehem Company had made any promise at such a conference to maintain prices. The statement denied appeared in a letter from the Vice-President of the American Can Company to its President under the date of March 24, 1938. The writer of the letter, however, testified before the Committee that he was unable to give the source of his information (Ibid, November 7, 1939, p. 255, and Ex. 1407). That company is the largest buyer of tin plate for can making and the price negotiated between it and the Corporation has long been recognized as the base price to be accepted by other tin plate producers.

Another and more recent instance of collaboration among competitive producers regarding base prices occurred with regard to tubular goods in the Summer of 1938. As shown by testimony and exhibits before the Temporary National Economic Committee, the Corporation on July 1, 1938 discontinued the manufacture of lap welded pipe for oil pipe lines and established a new and lower priced grade of seamless pipe. In view of the recognized superiority of seamless pipe, the differential between it and lap welded pipe was considered insufficient by manufacturers of the latter, especially those who had to buy the semi-finished steel for manufacture into pipe. The reason for the Corporation's move was that competing manufacturers of lap welded pipe had been cutting prices and had increased their relative shares of the total business to the disadvantage of the Corporation. The Vice-President in Charge of Sales of the National Tube Company testified that "Other lap weld was being manufactured with superior

physical properties to ours and selling at a price below ours." (Ibid, Nov. 14, 1939, p. 368)

The Wheeling Steel Corporation and the South Chester Tube Company were the only manufacturers which were then making lap welded pipe exclusively. On August 1st the Wheeling Corporation tentatively adopted a new price list on lap welded pipe which the South Chester Tube Company complained of as being too low. The Pittsburgh sales representative of the South Chester Company wrote the headquarters of his Company on August 12th that he had discussed these tentative prices with Wheeling Steel Corporation officials and had "remonstrated quite vigorously about the reductions in prices on the items other than the tonnage group." He went on to say that:

"Most of the other mills are after us, in an effort to get our cooperation in insisting that Wheeling bring the prices on the items other than the tonnage group up to the previously announced 2½%."

He then described a telephone conversation with a representative of the Wheeling Corporation and stated that from it he "learned that they had already been with Goble and that Wheeling is now going to revise their previously announced prices." Mr. Goble was Vice-President of the National Tube Company, a subsidiary of the Corporation. In the same letter the Pittsburgh representative stated that Mr. Goble was endeavoring to obtain an interview with an official of the Wheeling Corporation "and demand that they revise their prices". (Exhibit 1433, p. 349).

On August 15th the Pittsburgh sales representative of the South Chester Company wrote his general sales manager that no one had received the Wheeling Corporation's new price list but that rumors were current that such a list had been issued with greatly reduced prices. According to testimony of both the South Chester and Wheeling company officials, the price confusion which existed during August was removed and stabilized in the latter part of August and during the first half of September (Verbatim Record, T. N. E. C. Hearings, Nov. 14, 1939, p. 361). On August 24th the Wheeling Corporation issued a new price list which "reduced the prices to the consumer on the tonnage items or the important items and increased the non-tonnage items or the less important items". (Ibid, p. 351)

Sometime in September the National Tube Company authorized the acceptance of orders for its seamless B casing at the price of lap weld. This permission was given during a period of about six days (Ibid, p. 370). On September 29th the Pittsburgh sales representative of the South Chester Company wrote his general sales manager as follows:

"The matter outlined below is in strict confidence and has been received by the writer, since return of the gentlemen from New York, whom we mentioned by telephone.

"Naturally, to gain the end which the other mills wanted, that is: Not to have the National Tube Company quote prices, on Seamless material which would meet Lapweld competition, it was very necessary for these other mills to give up something in return. Through the same and another source, we have today checked a second meeting of manufacturers other than the National Tube Company to be held in a few days. As it stands at the moment, the thing resolves itself as follows:

"The National Tube Company will leave as they are at the moment the prices for Grade 'B' Seamless, which have already been announced. The National Tube Company and all other seamless mills will discontinue the manufacture of new Grade 'C' and bring the physicals of new Grade 'B' considerably higher. This with the new Grade 'D' will bring the status back to where it was prior to July 1st, when the whole mess was started.

"Youngstown, Spang Chalfant, Jones & Laughlin and Republic Steel will discontinue the manufacture of Lapweld Pipe in Oil Country sizes 10¼" O. D. and under.

"Wheeling Steel, who has already been contacted today, advised that with the present spread between Grade 'B' and Lapweld, they were slowly being forced out of business and would only ask that they be allowed to dispose of present stocks of Lapweld on hand.

"Bethlehem, who was contacted today, stated they had not made any Lapweld Oil Country material since July 1st. This I doubt, but they have also signified their intentions to discontinue the manufacture of this product.

"In so far as the South Chester Tube Company is concerned, as has been stated this afternoon, neither the National Tube nor a meeting of the other mills feel they should take the responsibility of determining or suggesting any policy for us to follow, as they would not want to be confronted at Washington, since we

make no other product in the way of pipe, and not even any other products manufactured of steel.

"We are handing this to Mr. Sweet, and we need not advise that this information is of the most confidential nature.

"Prior to the meeting of the mills, other than the National Tube, we are going over this matter with our source of confidential information. This meeting will be held probably Monday or Tuesday of next week, and within an hour after it adjourns, we hope to have exactly what transpired." (Exhibit 1437, p. 383)

The above quoted contemporaneous documentary record is to be weighed with the testimony of the author that he could not identify any of his sources of information and the testimony of representatives of the Wheeling Corporation and the National Tube Company that they did not participate in conferences with competitors. (Verbatim Record, T. N. E. C. Hearings, Nov. 14, 1939, p. 364) The South Chester Company representative, however, testified that he did not "believe that they were formal meetings to discuss these particular problems, but certainly everyone contacted each other to find out what their position should be and what attitude they should take in so far as the production of this type of material should be." (Ibid, p. 363) He further testified that he had talked to representatives of the Youngstown Sheet and Tube Company and of Jones & Laughlin Company (Ibid, p. 365). He further testified that perhaps the action of the National Tube Company in reducing prices on seamless pipe during September to the level of lap weld prices "might stop the action or the supposed or presumed actions of other manufacturers in disposing of existing stocks of lap weld material at ruinous prices," and that as a result of such action "the lap weld stocks in the hands of other operators probably lie dormant." (Ibid, p. 366) On October 1st an official of the Wheeling Steel Corporation wrote that from developments that past day or two the situation had cleared up and "We understand that it will not be possible to secure 'B' Seamless at the same price as Lapweld material." (Exhibit 1438, p. 367)

The foregoing evidence of collaboration among members of the industry in the collusive determination of base prices is tangible and legally competent evidence. It is impossible to classify or characterize it as "abstract criteria"

(c) *Recent Collaboration Among Competitors on "Extras".*

An important phase of steel prices is the application of so-called "extras" consisting of additions to or deductions from the base price of a base product to cover differences in quantity, quality, chemical content, size, shape, finish, packing and similar factors. Extras are so closely related to base prices that when applied to the base price they may be logically considered as forming a base for the extra product; for, after such application the calculation of delivered prices proceeds just as in the case of base products and base prices exclusive of extras. The Federal Trade Commission's reports on the Steel Code to the Senate and to the President in 1934 and again in 1936 demonstrated how the price of extras was controlled under the Code and subsequently. The collaboration of competitors to fix the price of extras was carried on quite openly. The reports showed how important extras are as a factor in prices—sometimes exceeding the base price itself—and how price increases can be made in the guise of extras without requiring any change in the base price. Certain quantity and size extras were increased by 395 percent on the average when the N. R. A. Code was adopted. Important increases in quality extras were also made. (F. T. C. Report to the Senate, pp. 12-15, 54, 56). Increases in extras ranging from 100 to 500 percent on high tensile steel for the Navy were adopted by vote of the Institute's Board of Directors and made effective September 1, 1934 (F. T. C. Report to the President, pp. 8-9) Fines at the rate of \$10.00 per ton were assessed under the Code for failure to charge the agreed extras. (Printed hearings before Senate Committee on Interstate Commerce in re S. 4055, pp. 235, 237, 239, 242, 245, 246, 247).

On June 10, 1936, the vice-president of the A. M. Byers Company wrote to the manager of tube and pipe sales of the Allegheny Steel Company as follows:

"You are undoubtedly bound by the Uniform Extras and Deductions of the Iron and Steel Industry for your product in the same way as we are for ours. You will find on referring to Section 60, top of Page 2, that if couplings are required for cut length specifications, an extra charge will be made.

"We have checked and find that it is uniform practice among steel pipe manufacturers to charge extra for the couplings in exactly the same manner as we charged you."

Testimony before the Temporary National Economic Committee establishes that the amount of "extras" to be added or deducted from the base price has continued to be the subject of collaboration and agreement among members of the

industry. Mr. Fairless, President of the Corporation, testified that extras were based on costs, "not only our costs but a cross section of the costs of the industry"; that the Corporation made it its business to find out the costs of competitors, stating, "We talk over extras with our competitors". He further testified that consultations with competitors as to extras had been going on at least for twenty-five years; that cutting the price of extras "is a very small percentage of the method in which prices are reduced", and that the numerous changes in extras made in May 1938 were the outcome of an exhaustive study made by representatives of the Corporation and other members of the industry. (Verbatim Record, T. N. E. C. Hearings, Nov. 7, 1939, pp. 219, 220).

Mr. A. C. Adams, a Vice-President of the Corporation, testified that he participated in consultations with representatives of competitors regarding the changes in extras made in May 1938; that because of overlapping of certain product classifications and varying extras within each classification there had been "a state of confusion from a pricing standpoint", and that it was impossible to do more than relate the extras to cost, since they could not be predicated exactly on costs because costs were constantly changing (Ibid, November 7, 1939, p. 222). Mr. Fairless testified that the industry had technical committees in the American Iron and Steel Institute which analyzed the costs of extras (Ibid, November 7, p. 219).

The new extras were identical as announced by various companies, and six companies announced them on the same date, namely, May 18th (Ibid, November 7, p. 228). In a circular letter to sales managers of the Carnegie-Illinois Steel Corporation, dated May 26, 1938, Mr. Adams described the new extras and stated that the net increase of \$1.00 per ton on certain items of cold rolled sheets would undoubtedly result in numerous complaints, that on another width of sheets there was an increase of \$3.00 per ton, and that the buyers of flat rolled products in certain widths would receive "an increase in most gauges, and therefore you will undoubtedly receive some complaints from this trade, but you can assure any buyer that the adjustment in the average price for all sales is slightly downward" (Ibid, November 7, p. 230; Ex. 1396).

The above facts challenge the contention of the Corporation in Exhibit 1418 that the objections to the pricing methods of the industry are wholly theoretical, are not based on tangible evidence and rest upon abstract criteria.

(d) *Recent Collaboration on Uniform Delivery Charges.*

An important ingredient in any delivered price system is that portion of the delivered price which is added to the base price as transportation charges. The basing point system in the steel industry has always included the all rail freight as the standard of such transportation charges. From time to time, particularly under the N. R. A. code, and subsequently, there have been variations or qualifications of the all rail freight basis, but such exceptions have been just as well understood as the all rail standard itself. Under the N. R. A. code, which was declared by the code itself to constitute an agreement among its members, it was required that delivery charges be calculated from specified common basing points and that the delivered prices must be calculated by adding to the applicable basing point quotation "the all rail published tariff rate charges" to "the place of delivery". In the case of certain products intended for fabrication of an identified structure, place of delivery was defined as "the freight station at or nearest" such structure and "not the shop of the fabricator". If other than all rail transportation is used, any reduction in the delivered price resulting therefrom must be "at a rate which shall have been previously approved by the board of directors and filed with the secretary". (N. R. A. Code Schedule E, Sections 3 and 4.)

Pursuant to the above requirements of the code, the board of directors authorized a number of departures from the all rail delivery charge and prescribed the "rate" at which or extent to which such departures might be made. A special committee of traffic managers was set up to aid in the calculation and compilation of the freight rates to be used. (F. T. C. Report to Senate March, 1934, pp. 20, 21). The board of directors approved and adopted what was known as "Freight Tariff No. 1, American Iron & Steel Institute". This compilation embodied delivery charges to various destinations from the basing point or points which would "customarily" be used for a particular destination. By a commercial resolution the board of directors resolved that "Freight Tariff No. 1 * * * shall be deemed" to be the lowest published water and water-rail transportation charges and that the charges therein listed must be added to the applicable base price to obtain the correct delivered price. This compilation also provided for switching charges at dock destination. The resolutions specifically recognized that the water and water-rail rates included in the publication were not necessarily

the lowest rate, that it was "frequently difficult or impossible" to ascertain the lowest rate and that in some cases the use of published steamship rates "might result in unfair competitive conditions". For those reasons the board declared that the rates approved by it should be "deemed" to be the lowest published rate. (Commercial Resolutions 8 and 18.) During the N. R. A. code period, producers were fined at the rate of \$10 per ton for making sales which were at variance with the delivery charges which the board of directors had established.

When the board of directors of the institute voted in June, 1935, to continue the provisions of the code with regard to the standards of fair competition, this apparently carried with it the continued compilation and promulgation of the freight rates which were supposed to be used by members of the industry in calculating their delivered prices from the applicable basing points. In hearings before the Senate Committee on Interstate Commerce, the executive secretary of the institute testified in March, 1936, that the institute had continued to publish freight tariffs after the expiration of the N. R. A. code, and in that connection said that during the code period "when every member of the code was required to conform to certain provisions of his contractual relationships, it was a convenience for him to know what he was supposed to do". (Printed record of hearings on S. 4055, page 266.)

The Federal Trade Commission's report to the President on steel sheet piling, in June, 1936, described the nature and extent of the collaboration existing among the members of the industry in preventing any deviation from identical delivered prices through the medium of identical freight charges. To such an extent was this carried that a complaint was entertained by the institute's traffic committee involving a P. W. A. project requiring about \$60,000 worth of pipe. The bidders named a uniform delivered price to the extent of carrying out decimals to two places as usual but one bidder was "awarded the business because carrying the basing point price to three places resulted in their bid being 12¢ low". (F. T. C. Report to President on Steel Sheet Piling, p. 24, App. H.) An extensive campaign was carried on to prevent buyers from diverting shipments consigned to them at the delivered price calculated under the basing point formula, from the destination where such price was correct to a destination where such price was below the correct delivered price. The aid of the railroads was enlisted to prevent buyers so diverting their purchases, although a number of the railroads objected on the ground that the consignee was the owner of the goods and had the legal right to divert them.

Pursuant to the general purpose of preventing the slightest divergence in the delivered prices of the various producers, members of the industry collaborated in the adoption of rules to eliminate the excessive fractions resulting from the emergency charges prescribed by the Interstate Commerce Commission to dispose of fractions of a mill and fractions of a cent for the purpose of computing identical delivered prices, to equalize land grant freight rates so that uniform reductions in delivered prices might be made on sales to the United States government, and to standardize freight rates and drayage charges used in connection with sales and deliveries to various government navy yards. In addition to the foregoing, the institute has compiled and promulgated compilations of all rail, rail-water-rail and rail-water freight rates to facilitate the calculation of identical delivered prices. (F. T. C. Report to President on steel sheet piling, June 10, 1936, pp. 24-27.)

The importance of a standard compilation of freight rates from the standpoint of promoting identical delivered prices is shown in the following statement in a letter written by the Chairman of the Traffic Committee of the Institute to the Chairman of the Commercial Committee under date of January 29, 1934:

"While every effort has been made to figure minimum rates, it is not humanly possible to attain accuracy in each and every instance, bearing in mind that the half million rates published have been compiled by some 150 men. As errors are discovered the incorrect rate will be changed, but until the change appears in the supplement to the tariff it is our opinion it should not be used for sales purposes. Certain branches of the industry have for years followed such a practice." (F. T. C. Report to President on Steel Sheet Piling, App. C-5.)

A continuation of this understanding subsequent to the N. R. A. Code period is shown by the following exchange of correspondence:

On November 9, 1935, O. W. Bryte, of the Traffic Department of the Newport Rolling Mill Company, wrote to E. T. Butler of the American Iron and Steel Institute calling attention to the cancellation of certain freight rates and saying:

"As we have not been furnished with supplement carrying similar cancellations against your Freight Tariff No. 2, will you please inform the writer if we shall be guided by the corrections as heretofore mentioned or if we shall adhere strictly to your Freight Tariff No. 2."

On November 13, Mr. Butler replied:

"In the meantime, in connection with the question raised in the second paragraph of your letter it is my understanding that until such time as the rates in Freight Tariff No. 2 are changed, the rates to be used are those carried in Freight Tariff No. 2."

The above described practices with regard to freight rates is a tacit recognition of what the Federal Trade Commission found as a fact from evidence in the Pittsburgh plus case to the effect that freight tariffs are complicated, that oftentimes there are two or more different freight rates between two points given in different tariffs and that different traffic experts might not arrive at the same results. (Findings of Fact, Docket 760, Paragraph 14 (u)).

As pointed out by the Federal Trade Commission in its reports to the Senate in March, 1934 and to the President in November, 1934, the industry has maintained the all rail basis of freight in calculating delivered prices in the face of protests from numerous business interests and numerous organizations of business interests which were being deprived of their potential natural advantages represented in their ability to use cheaper forms of transportation than all rail. N. R. A. filed with the institute a partial list of protests against the suppressed condition of inland waterway transportation under the code. That list included seventy-two names, of which twenty-eight were industrial concerns, eight were water transportation agencies, four were associations devoted to improvement of rivers and canals, four were local Chambers of Commerce, twelve were United States Senators and fourteen were members of the House of Representatives. At a meeting of members of the industry, these protests were rejected and the all-rail basis of freight calculation was reaffirmed by an overwhelming vote. (F. T. C. report to the President, November, 1934, page 23).

Shortly after this meeting, the deputy administrator in charge of the code summarized the situation in part as follows:

"Up until the Code Authority meeting yesterday, it was the belief of Messrs. Richberg, Simpson and myself that the Industry was making conscientious efforts to solve this problem. * * *

"After the meeting Mr. Simpson and I, in discussing the matter, reached the conclusion that the Code Authority recently has not shown the proper attitude or activity toward formulating a definite method for adjusting this inland waterway transportation problem, and the further conclusion that some action on the part of this Administration may be necessary to accomplish this purpose. * * *

When the institute's board of directors proposed to permit mills shipping by water to make deductions in delivered prices without at the same time permitting inland mills from meeting such deductions, resolutions were adopted by certain groups of competitive producers, stating their opposition as follows:

"If water shipments can be sold at lower prices than rail shipments, it creates a hardship on inland mills by excluding them from business in which they have always participated; it creates a hardship on inland consumers by placing them in an unfair position as to the cost of their products; it creates a hardship on inland communities by establishing preferential prices under which it is more desirable for communities to be located on waterways; all of which is contrary to the spirit and letter of the code of fair competition for the industry." (F. T. C. Report to Senate, March, 1934, p. 28).

The Federal Trade Commission commented upon the above position by saying in its report to the Senate:

"The position above taken is that by imposing equal hardships on communities located on waterways, the hardships of the inland communities are thereby removed. It also comprehends the theory that sectional advantages conferred upon buyers by nature should be nullified in order to insure identical delivered prices for the benefit of the sellers." (Ibid, p. 28).

The position of the industry with reference to competition from plants having the advantage of water transportation is further shown by correspondence between Mr. R. P. Lamont, President of the Institute when the N. R. A. Code was adopted, and the South Chester Tube Company of Chester, Pennsylvania. The latter company had a plant located on tide water and sought assurance from the directors that the advantages of its location would not be destroyed or impaired. Mr. Lamont replied that the Board of Directors realized that members of the industry with advantages of any kind desired to preserve them and that those with disadvantages desired to have them eliminated. Referring to the geographical advantage of the South Chester Tube Company, he said:

"To leave such advantages with you would result in continuing unfair competition in your favor as against your competitors who, for some reason or other, may not be as advantageously located in respect to transportation as are you." (Ibid, p. 49).

In view of the above facts the question again presents itself as to whether the objections to the basing point system are based upon "abstract criteria" as contended by the Corporation or upon "tangible evidence."

(e) Relation Between Price Leadership and Collaboration Among Competitors.

How readily leadership of the Corporation on prices may supplement the trend toward collaboration among competitors is demonstrated by evidence presented before the Temporary National Economic Committee. It was there established that for many years it has been customary for competitors of the Corporation engaged in selling tin plate to can manufacturers to contract with their respective customers in terms of whatever base price the Corporation might negotiate and announce in its contract with the American Can Company. An American Can Company official testified that Carnegie-Illinois Steel Corporation, and its predecessor, American Sheet and Tin Plate Company, were the only companies that published a base price on tin plate (Verbatim Record T. N. E. C. Hearings, November 8, 1939, p. 256). He also testified that other sellers of tin plate "have not made a lower price than Carnegie-Illinois have made to us", but had agreed to take the price fixed by Carnegie-Illinois, which is "the officially named or published price". Mr. Fairless, President of the Corporation controlling Carnegie-Illinois and its predecessor, testified that it was a correct assumption that competitors "are content to take whatever price Carnegie-Illinois posts" (Ibid, November 8, p. 257).

Mr. Grace of the Bethlehem Corporation, the second largest producer, could not recall any occasions when his company had taken the initiative in reducing prices, but said that "generally we haven't" and that as far back as he could remember "in the main we would normally await the schedules as published by the Steel Corporation" (Ibid, November 9, p. 281). He could recall no instances where the Bethlehem Corporation failed to follow the Corporation in advancing prices and in the adoption of standard extras (Ibid, November 9, p. 281).

In hearings before the Senate Committee on Interstate Commerce in April 1936, W. A. Irvin, then President of the Corporation, testified that his companies "generally make the prices, unless some of the other members of the industry think that that price may be too high, and they make the price", that competitors "generally" followed the Corporation's price, and that the exceptional deviators were looked upon as "price cutters". (Hearings on S. 4055, p. 595).

The sales manager of Jones & Laughlin stated to representatives of the Federal Trade Commission in 1936 that he felt compelled to follow the prices of the Corporation and that to sell below the prices of competitors would bring about a ruinous competitive condition. The Vice-President in Charge of Sales for the Carnegie-Illinois company stated that it never takes the initiative in reducing prices, is anxious to obtain the highest possible price, and that it is a fallacy to attempt to increase business by reducing prices. Commenting on this in its report to the President on June 10, 1936, the Federal Trade Commission said:

"Under such a philosophy all that is necessary is to set up some system for informing all competitors what is the highest mill base any one of them desires and mill base quotations automatically become identical. Lower costs of production and cheaper costs of transportation must not be allowed to bring a price below that of competitors for fear of a ruinous competitive condition. Such a view is wholly frustrative of price competition." (p. 6)

The above evidence is merely confirmatory of the Commission's findings of fact in the Pittsburgh Plus case in 1924 to the effect that the Corporation's "prices are generally followed by their competitors." (F. T. C. Decisions Vol. VIII, p. 32, Paragraph 12i). The Commission also found from evidence in that case that the Corporation had collaborated extensively with its competitors in preparing, adopting and circulating compilations of uniform extras and differentials, freight rates, tolerances and weights, for the purpose and with the effect of establishing and maintaining identical delivered prices. Between 1907 and 1911 the Corporation was the leader in promoting the so-called Gary dinners at which agreements and understandings with its competitors were reached as to base prices on various products. Prior to 1907 the Corporation was a leader in pools and zone price-fixing arrangements, and other devices for eliminating price competition between it and its competitors (See opinion of Judge Buffington in U. S. vs. U. S. Steel Corporation, 223 Fed. 55).

(f) Degree of Observance of Basing Point System.

Without an investigation of sales records directed specifically to the above subject, there is no way of providing an answer that is dependable. The general opinions of parties interested in defending the basing point system are almost certain to exaggerate the number, proportion and degree of departures from the system. Competitors are likely to have an honest but exaggerated idea of the departures made by their rivals and may unduly minimize their own. Yet departures undoubtedly occur, sometimes unintentionally and sometimes deliberately.

The logic of treating deviation from and disregard of the system, however, as an argument for the system itself is patently defective. Yet the Corporation adopts it. Thus it is stated that the basing point system enables "the buyers to induce price concessions by trading one producer's prices against another's" (Ex. 1418). This statement was made shortly after the Corporation quoted from the N. R. A. Report to this effect:

"The outstanding characteristic of the basing point system is the fact that it puts rival producers on a footing of price equality with each other and all the consuming points over a wide area * * *" (Ex. 1418).

The system which is designed to prevent buyers getting any lower delivered prices from one producer than from another is credited with giving buyers the opportunity of inducing price concessions by trading one identical delivered price against another.

In another place the Corporation argues that the basing point system tends to prevent prices from rising more than it tends to prevent them from decreasing "since unpublished price reductions are possible, whereas unpublished price increases, of course, never occur" (Ex. 1418). Unpublished price reductions are also possible where prices are made f. o. b. mill or in fact under any conceivable pricing system. They are not so peculiar to the basing point system that the system can take credit for the downward pull upon price levels of unpublished price reductions. The Corporation also states that the basing point system has no more of a stabilizing influence than does any open price system, saying that "the same stabilizing influence would result from any open price system." Obviously an open price system based wholly upon f. o. b. mill prices could not result in making delivered prices identical. Mill net prices, of course, might be the mathematical derivative of an identical delivered price. Although as shown above the Corporation claims that any open price system would produce "the same stabilizing influence", it also quotes from the N. R. A. Report to the effect that while an open price system could be used with any kind of a price structure "it has its fullest effect if each producer knows the delivered prices he has to meet at each purchasing point" (Ex. 1418). The corporation also argues that without knowing what prices would have been in the absence of the basing point system there is no way of determining the effect of the system upon prices (Ex. 1418). The Corporation nevertheless quotes N. R. A. to the effect that the system puts competition "on a basis which will yield higher prices than would result without it" (Ex. 1418).

In considering the degree of adherence to or deviation from the basing point system of identical delivered prices, the testimony of prominent representatives of the industry is pertinent. Mr. Eugene Grace, president of Bethlehem Steel testified before the Temporary National Economic Committee that he believed in the fundamental law of competition and that concessions from base prices were "wholesome". Yet he agreed that such concessions were inconsistent with the ideal of the posted price system and said he did not want to see the base price structure destroyed. (Verbatim Record, T. N. E. C., hearings, November 9, 1939, p. 283.) Mr. Grace further testified that during the unsettled price conditions of early 1938, published base prices were not being adhered to in sales to capital goods producers but that they were getting base prices on the smaller type of orders and on consumers' goods like the canning industry where the demand was holding up. He admitted that even some large buyers were probably paying the full base price, that the government ordinarily continued to be quoted the full base prices and to pay them, and that it was Bethlehem's policy to get published base prices if it could (Ibid, pp. 277, 278, 279). Mr. Fairless, president of the Corporation, also testified that some buyers paid the base price plus standard extras at the same time that others were getting reductions (Ibid, Nov. 7, p. 209).

Mr. Fairless also testified that at no time in 7 years had the Birmingham area been able to secure its full published prices "except in rare instances" (Ibid, p. 213). The 7 years referred to would have included the N. R. A. Code period, and if Mr. Fairless's testimony was correct, it is equivalent to a statement that

there was a wholesale violation and disregard of code requirements which would have subjected the violators to a fine at the rate of \$10 per ton.

Mr. W. A. Irvin, formerly president of the Corporation, testified before the Senate Committee on Interstate Commerce in April, 1936, that:

"The customers who are able to get concessions are those having larger orders to place and ones who utilize steel in their own production." (Hearings on S. 4055, p. 607.)

A recent report of the Procurement Division to the Temporary National Economic Committee contains illuminating information as to the extent of identical bidding on steel products. It was presented as part of a survey of the practice of identical bidding on all commodities purchased by the government during a 12 month's period from December, 1937, to November, 1938, inclusive. The total survey included more than seven million bids and over 1,600,000 bidders. (Report, p. 68.) The cases of identical bidding totaled 25,610 and among these "iron and steel and their products" led all others with 6,693 cases or 26.1 per cent of the total as against 12.8 per cent for the next highest commodity (Ibid, pp. 72, 73) and 10.15 per cent of identical bids for all commodities. The survey shows three forms of identical bidding: (a) cases where all bids were identical, (b) cases where two or more of the lowest bids were identical, (c) cases where two or more identical bids were higher than other bids. Of the first class "iron and steel and their products" had 21.4 per cent as against 17.3 per cent for the next highest commodity and 1.72 per cent for all commodities. Of the second class of identical bids "iron and steel and their products" had 25 per cent as against the next highest commodity of 13.6 per cent and 2.46 per cent for all commodities. Of the third class of identical bids the industry had 29.3 per cent as against 11.3 per cent for the next highest commodity and 5.97 per cent for all commodities.

In the classification of "iron and steel and their products" however, the survey includes 31 classes of commodities, of which steel works and rolling mill products are one. On the basis of the sub-classification of steel works and rolling mill products the percentages of the three types of identical bids were 30.8, 27.8 and 41.3 per cent, respectively, as against 21.4, 25, and 29.3% for the general classification of "iron and steel and their products". (Ibid, p. 91.) Thus it appears that the percentage of identical bids among steel works and rolling mill products was substantially higher than among other products classified under the designation "iron and steel and their products".

Taking all bids regardless of commodity, the Procurement Division reported that 89.85 per cent in value and 76.9 per cent in number were non-identical. Only the remainder showed one of the three types of identical bidding previously described. It is thus apparent that the practice of identical bidding on federal government purchases is concentrated in a comparatively few industries and that "iron and steel and their products" lead all the rest in that respect, and that within the industry defined by the quoted words, steel works and rolling mill products lead all other in the percentage of identical bids to the total number included in the survey. The actual government expenditures in cases of identical bidding totaled nearly \$36,000,000 (Ibid, p. 65). If to this total were applied the 26.1 per cent relation of identical bids in "iron and steel and their products", government payments of \$9,396,000 would be indicated in cases of identical bidding. If the simple average of 23.2 per cent applying to the first two types of identical bids for steel works and rolling mill products were applied to the total purchases of all commodities, the government payments to the steel works and rolling mills would be indicated as \$8,352,000.

THE BASING POINT SYSTEM WAS NOT A NATURAL EVOLUTION INHERING IN THE PECULIAR ECONOMIC NATURE OF THE INDUSTRY, BUT WAS DEvised BY COMPETITORS AS A MEANS OF ELIMINATING PRICE COMPETITION

A discussion of this subject is made necessary by certain assertions of the Corporation which are not in accord with the facts. One of the declared purposes of its pamphlet is "to establish that this pricing method is the natural result of basic economic conditions in the steel industry" (Ex. 1418, foreword). In another pamphlet, the Corporation asserts that the system is "a simple pricing medium which has evolved over a long period of time to meet the peculiar characteristics of the steel industry" (Ex. 1410).

Before proceeding to an analysis of the argument made to support the statements quoted, there will be described briefly the evidence developed during the trial of the Pittsburgh Plus case, and which was summarized by the Federal Trade Commission's Findings of Fact made in 1924. The evidence taken traced the

origin of the basing point system back to its earliest beginnings in the steel industry. According to the testimony of Col. Henry P. Bope who had been connected with the Carnegie interests since 1879 and was later with the Corporation until 1918, the first use of the Pittsburgh Plus System was in 1880, when four manufacturers of structural beams formed an association to fix prices and adopted Pittsburgh as the basing point on which delivered prices should be made. Prior to that time the practice was to quote f. o. b. mill and each mill made whatever price seemed necessary to take the business. Later on, the Beam Association used a zone method of fixing prices building up the delivered prices upon average freight rates within each zone. Col. Bope also testified that the various associations covering various steel products used the basing point system as fundamental to their price fixing activities, that they could not maintain prices without a basing point, and that when a temporary departure from the system occurred in 1909 the mills got into a condition of chaotic prices and were glad to return to the Pittsburgh base. (Typed Transcript of Testimony, D. 760, pp. 10859, 10861, 10863, 10869, 10870.)

In 1902, the Bar Producers, including the Corporation's subsidiaries, met and agreed upon the Pittsburgh Plus system as a basis for fixing and maintaining uniform delivered prices. The plate and structural shape producers met and did likewise in December, 1903, and in 1904 the large wire producers, including a corporation subsidiary, agreed upon the Pittsburgh Plus system as a method of maintaining uniform prices (Findings of Fact, Docket 760, par. 14, b, c and d).

The Pittsburgh Plus System was adopted in 1900 by the National Tube Company, a Corporation subsidiary, and all its competitors adopted the same practice (Ibid, par. 14, c). A sales manager of American Steel and Wire Company, a subsidiary of the Corporation, testified that usually there was no price competition among the wire manufacturers and that generally all wire mills charged the same delivered prices on a Pittsburgh Plus base (Findings of Fact, Docket 760, par. 12 c).

In 1900 the Pittsburgh Plus system was adopted by the Billet Manufacturers as a basis for their agreed prices, and in 1918 by an agreement among bolt, nut and rivet manufacturers (Ibid, par. 14, f & g). The basing point system was not applied to the sale of tinplate until 1903. Prior to that time the Corporation sold tinplate f. o. b. mill (Ibid Par. 14, i).

In May, 1901, while the Corporation was still in process of formation, its various sales managers in meeting assembled formally voted that all carload lots "shall be sold delivered at destination, based on tariff rates of freight" (Government exhibits in case of U. S. vs. U. S. Steel Corporation, Vol. 22, p. 619). This policy was re-affirmed from time to time by vote of the sales managers (Ibid. pp. 625, 627 and Hearings before the Stanley Committee, Vol. 6, p. 3961).

The Federal Trade Commission found in the Pittsburgh Plus case, from evidence received in that case, that the Corporation was continuing to cooperate actively with the National Association of Sheet and Tinplate Manufacturers, that the Corporation's prices were furnished to the Association and relayed by wire from it to its members before being announced to the public. The Commission found that the Association members generally adopted the Corporation's prices as their own (Findings of Fact, Docket 760, par. 14, j.). The Commission also found that the Corporation was providing its competitors with booklets containing extras and differentials, with freight rate books which standardized the transportation factor in delivered prices, and with tables of tolerances and weights, all of which were necessary in making the Pittsburgh Plus system effective in its objective of identical delivered prices (Ibid. par. 14, rr, n & p).

The Commission found in the Pittsburgh Plus case that during the World War Pittsburgh Plus was discontinued at Chicago on plates, shapes and bars, but just before the close of the war it was restored at the suggestion of Judge Gary and one or two other steel producers (Findings of Fact, Docket 760, par. 14, z to 11).

It may be noted also that prior to the adoption of the NRA Code for the iron and steel industry pig iron had been sold on an f. o. b. furnace basis, notwithstanding that an effort was made by Judge Gary, of the Corporation, to have a basing point system established on pig iron during the World War. (Ibid, par. 14, z 19). In testifying before the National Recovery Review Board, in April, 1934, the executive secretary of the American Iron and Steel Institute stated that, with one exception, "every one of those furnace locations which had been previously used as a place for quoting prices f. o. b. furnace is now a place listed as a basing point", and that whereas pig iron before the Code "was quoted at an f. o. b. furnace price, it is now an f. o. b. basing point price". (Stenographic Report of Hearings, Natl. Recov. Rev. Bd., April 20, 1934, p. 181). Since the Code which provided for this change in the method of pricing pig iron was the

product of the organized steel industry, it can hardly be claimed that the establishment of the basing point system in pig iron was merely a natural evolution of competitive forces as distinguished from joint effort on the part of competitors.

Passing over this most modern instance of the extension of the basing point system, the Corporation goes back to a period prior to the American Revolution for an example of what it says is "a clear picture of a rudimentary basing point structure" embodied in the Philadelphia iron market. It refers to the "remarkable evidence of a basing point price structure centered on Philadelphia prior to the revolution" (Ex. 1418). A description given elsewhere in the same exhibit, however, says that "iron products were sold on a Philadelphia base with outlying mills absorbing freight in order to bring their products to the central market" (Ex. 1418). This strongly indicates that this Philadelphia iron market was the very opposite of a basing point system, in that it was a central buying market, like a commodity exchange. If so, that was no more freight absorption than a farmer has in getting his crop to market.

Coming now to the argument made by the Corporation in support of its assertions as to the natural economic evolution of the basing point system, it quotes from a book by Dr. de Chazeau to the effect that the system evolved naturally because of the growing scale of operations and the shift from iron to steel production, and that the evolution of economic forces was more important in explaining the development of the basing point system than "the birth of a dominating corporation". Nevertheless, the Corporation admits in the same connection that among the economic forces referred to by Dr. de Chazeau were "the material increase in investment and overhead cost, combined with the centralization of producing units" (Ex. 1418). Such factors, of course, were one aspect of the birth of the dominating corporation and, as before shown, the Corporation, after the merger of its various constituent corporations was completed, formally and definitely decided upon adherence to the basing point system of delivered prices. The question may be raised as to what logical or necessary relationship there is between the development of large-scale productive facilities and a system of identical delivered prices for all competitors, whether large-scale or otherwise. There may be some logical relationship between such a system and the permanent success of mergers which bring together under one ownership scattered productive facilities which would otherwise compete with each other.

Referring to the fact that in the early days of the steel industry prices were quoted f. o. b. mill, the Corporation states, "From this assumption the Commission and other critics seem to have concluded that f. o. b. mill prices are the 'natural' way of quoting steel prices" (Ex. 1418). As a matter of fact, it was the actual historical way and the natural way for competitors acting independently to quote. It is not the natural way for monopoly of course, and is repugnant to identical delivered prices. The Federal Trade Commission found as a fact in the Pittsburgh Plus case that "no systematic Pittsburgh Plus system had been adopted by the steel producers at the time of Pittsburgh's greatest predominance in the steel industry, or until after 1900" (Findings of Fact, Docket 760, par. 14 a). The Corporation seeks to create the impression that there was no connection between its initial merger of competing companies and the use of the basing point system as a comprehensive method of pricing all steel products. It is implied that the basing point system had been established for most products prior to the formation of the Corporation in 1901 (Ex. 1418). However, the footnote citation given does not support that implication. The chronology of the basing point system as it was extended to apply to more and more steel products has been previously shown.

It is stated that the Pittsburgh Plus system vanished in Chicago in 1911 and 1912, and that it was not in force anywhere during the World War (Ex. 1418). The Federal Trade Commission found from evidence in the Pittsburgh Plus case that "from the time the Pittsburgh Plus practice was adopted by the steel industry to the present time, Pittsburgh Plus prices disappeared whenever substantial price competition occurred in the Chicago district; prices of steel producers in such cases were made f. o. b. their respective producing mills. When the Pittsburgh Plus prices were resumed, price competition had ceased" (Findings of Fact, Docket 760 par. 14 t). As a matter of fact, when the War Industries Board fixed maximum prices on steel products during the war, it accepted Pittsburgh and established other points of production basing points for such products.

The contentions of the Corporation that the basing point system developed as a natural evolution out of the peculiar economics of the industry are not supported by any "tangible evidence" and they are contradicted by such evidence. They are supported by nothing more tangible than assertions, conclusions, surmises and rationalizations. They are in striking contrast to the tangible

evidence recited by the Federal Trade Commission to sustain its conclusion that the basing point system in the steel industry was devised by competitors as a means of eliminating price competition.

THE COLLECTION OF "PHANTOM FREIGHT" CHARGES IS INHERENT IN THE BASING POINT SYSTEM OF DELIVERED PRICES AND THE AMOUNTS COLLECTED ARE PROPORTIONED TO THE SYSTEM'S OBJECTIVE OF MAINTAINING IDENTICAL DELIVERED PRICES.

The term "phantom freight" simply means that where the actual freight is less than the amount added to the base price to cover the freight element in the delivered price, the difference goes to the seller, giving him a mill net yield greater than the governing base price by the amount of that difference. It is not freight in any sense but is an addition to the sales price. Nor is it a phantom in the sense of being unreal. The existence of it is just as real as the base price itself and the size of it may at times approach the base price. This is one of the features of the basing point system which sellers find it most difficult to defend. For it involves the anomaly of a seller realizing the most out of a delivered price where there is little or no actual freight charge included in it. As between buyer and seller, the nearby buyer is not only deprived of any price benefit from his location but is penalized for it.

The Corporation freely concedes the existence of so-called "phantom freight" and goes into great detail to explain the various circumstances which give rise to the different types and amounts of such freight. An attempt is made to vindicate the practice by arguing that it is an expression of normal competition in which the seller merely takes advantage of his geographical location to obtain a better price. Thus, it is said that the mill which charges "phantom freight" merely "names a delivered price which permits it to profit from a competitive advantage, due to a superior geographical location" (Ex. 1418); that a producer located on water has an advantage over producers not so located "which he is properly entitled to realize by a higher mill net return"; that as to such a mill "there is no competitive reason why it should give the benefit of the lower transportation to the customer" and if it did so "it would be following some non-competitive principle"; that mills at a considerable distance from a basing point and with a corresponding freight advantage in selling to nearby customers "behave competitively and naturally when they charge their customers a price which realizes that advantage"; and that "the strong as well as the weak producers are behaving competitively and naturally when they charge prices which reflect their freight advantage over other producers on sales in their local territories". A somewhat similar argument was advanced by the executive secretary of the American Iron & Steel Institute in testimony before the Senate Committee on Interstate Commerce in March 1936, when he said that if he had a steel plant located at an isolated point such as Duluth, such plant "would have what might be called, in effect, a protective tariff on the transportation," because of what a mill located elsewhere "would have to bear to get his product into my immediate vicinity." (Printed record of hearings on S. 4055, p. 275.)

It is obvious, of course, that such arguments, except possibly the last, beg the question. They merely assert the competitive character of the practice, the very thing that is in dispute. They admit that the collection of "phantom freight" is the necessary result of including more freight in the delivered price than is actually incurred, a characteristic of the basing point system. Yet it is argued that "the possibility of a non-basing point mill realizing mill net returns higher than those obtained by competitive mills at basing points, is not due to the absence of a basing point, but to a geographical advantage." (Ex. 1418.)

The foregoing arguments divert attention from the crucial fact that the success of the basing point system in accomplishing its main objective of identical delivered prices for all competitors, *necessitates* that mills with advantages of geographical location retain them, so far as prices are concerned, and not merely retain them generally, but systematically to the last cent or fraction of a cent of their freight advantage. If they share with their customers the slightest part of such advantages by making a lower delivered price the main objective of the system is defeated. Under anything approaching free competition a mill with a geographic freight advantage might voluntarily share or be forced to share such advantage with the buyer having the same geographic location as himself. But to do that would undermine the system itself. The arguments even go to the length that the least sharing of such advantage is to follow some non-competitive principle. This is equivalent to contending that a lower delivered price than that of mills with the

disadvantage of higher transportation is non-competitive. To retain the full amount of the freight advantage of each mill is of course to cancel the full amount of the freight disadvantage of each other mill in order to establish and maintain identical delivered prices. Moreover, the amount of "phantom freight" that may be collected by a non-basing point mill in a given instance depends upon its relation freight-wise to the governing basing point. The amount that may be collected by a basing point mill depends upon its relation freight-wise to the destination. The amount that either may collect is also related to the difference between all-rail freight and the actual freight by cheaper modes of delivery. The Corporation also makes clear that the collection of "phantom freight" is not limited to non-basing point mills but is indulged in by basing point mills also. But as to both, the success of the system demands that this be done. The significance of the Institute secretary's comparison between the protective tariff and "phantom freight" is that in both cases the amount that must be paid and the basis on which it is calculated are determined by a system of rules designed to insure the highest degree of exactitude.

In its illustrations of certain types of "phantom freight", the Corporation attempts to minimize their amount and importance. Thus, it is said regarding "phantom freight" realized by non-basing mills within the switching areas of a basing point that "the amounts which they might realize over their base prices are of no consequence to either producer or consumer." (Ex. 1418.) Yet even in such illustration the amount of "phantom freight" was shown to range from 10 cents to 50 cents a ton and it is stated elsewhere by the Corporation that "customers generally order in large quantities, which makes a small price cut worth bargaining for" and "consequently, a small difference in price will shift large orders from one producer to another." (Ex. 1418.) Again, in illustrating "phantom freight" arising out of differences between arbitrary switching rates and the actual, it is said that the amounts involved are "insignificant." (Ex. 1418 footnote.) These "insignificant" amounts, however, may spell the measure of "a small difference in price" sufficient to shift large orders.

An effort is also made to minimize the amount and importance of "phantom freight" arising out of differences between cost of delivery by truck and by rail. It is stated that "only an extremely small proportion of steel tonnage is delivered by truck, partly because many products cannot be economically hauled by truck, and partly because large consumers prefer rail delivery." (Ex. 1418.) Yet it is admitted that almost any steel product can be shipped by truck, that light flat rolled products are easiest to load and transport by truck, that many types of wire products can be trucked economically and that there is "considerable demand for delivery by truck of some products." (Ex. 1418.) As shown by the Federal Trade Commission in its report to the Senate in March 1934, the amount of "phantom freight" involved in the 35 percent rule on truck deliveries in many instances amounted to from \$2.50 to \$3.90 per ton. (FTC Report, pp. 34, 35.)

The Corporation also states as to "phantom freight" that it is "very doubtful whether any mill in a basing point area realizes any net gain, even on sales to its nearest customers." (Ex. 1418.) The important question is not whether the total amount of "phantom freight" exceeds the total amount of "freight absorption," whether for an individual mill or company or for the industry as a whole. If the total amount of "phantom freight" were always less than the total amount absorbed, there still would be identical delivered prices and a systematic inclusion of such freight to produce that result at any given destination.

It is worthy of note that the Corporation does not show the amounts of "phantom freight" which accrue to non-basing mills located at considerable distances from basing points. Nor does it show the amounts which accrue by reason of differentials between basing points that embody some or all of the transportation charge from other basing points. Several illustrations may be given which will show how substantial and important these omitted types of "phantom freight" still are to large areas of the country, despite the discontinuance of the single basing point system, the substitution of the multiple basing point system, the 1938 elimination of certain price differentials between basing points, and the addition of new basing points in that year.

In its report to the President on the Steel Code in November, 1934, the Federal Trade Commission stated that as to sheets the Pacific Coast ports were basing points "in name only, their prices being merely a composite of the Pittsburgh base price plus transportation from Pittsburgh. Accordingly, the Pittsburgh-plus system is literally in effect in that territory." (Report, p. 28) The Commission quoted from a protest filed with the American Iron & Steel Institute by the Los

Angeles Chamber of Commerce in May, 1934. The Chamber said that the Pacific Coast basing point prices were "substantially equal to the Pittsburgh mill base prices, plus rail and water transportation charges, including wharfage, handling, and terminal delivery." The Chamber further said that this had the effect of "depriving local steel rolling and working industries from the volume and profits of business afforded by a restricted local territory, as to which they have very definite geographic and transportation advantages." (Report, p. 19.)

As to certain products the situation on the Pacific Coast remains substantially unchanged. The general manager of the Pacific Coast Fabricators Association testified before the Temporary National Economic Committee on November 14, 1939, that prices paid by members of his association at Pacific Coast ports were as much or more than the eastern mills' base price plus rail and ocean freight to Pacific Coast ports, plus marine insurance, wharfage and loading on cars from the wharves at such ports. (Verbatim Record, TNEC Hearings, p. 378, Ex. 1441, pp. 386, 387). Yet products so priced are produced at San Francisco and Seattle mills owned solely by the Corporation and Bethlehem. Bars produced on the Pacific Coast are priced at Birmingham plus, shapes at Philadelphia plus, and sheets at Sparrows Point plus. The amount of "phantom freight" thus involved ranges from \$10 to \$13 a ton. Prior to July, 1938, sheets were sold on the Pacific Coast at Pittsburgh plus and the amount of "phantom freight" was \$15 per ton. The amount of "phantom freight" which led to the application of the Western Association of Rolled Steel Consumers for relief against the Pittsburgh Plus practice was only \$7.60 a ton at Chicago.

The effect of the present basing point system on Pacific Coast fabricators is similar to the effect of the Pittsburgh Plus system on Middle Western fabricators prior to 1924. The manager of the Pacific Coast Fabricators Association testified that Eastern and Middle Western fabricators were enabled to ship to the far west and compete with the West Coast fabricators but that the latter could not ship to the east. (Verbatim Record, TNEC Hearings, Nov. 14, 1939 p. 381) This is the very predicament that Middle Western fabricators found themselves in under the Pittsburgh Plus system. Eastern fabricators were enabled to compete with them in the west while the western fabricators were prevented from competing in the east.

There has been a tendency in some quarters to infer that the discontinuance of the single basing point system known as Pittsburgh Plus, and the substitution of the multiple basing point system in 1924 had the effect of ending the discrimination expressed in "phantom freight" charges. That inference was encouraged by the addition of new basing points under the N. R. A. Code and of others in 1938, coupled with the abrogation during that year of price differentials between various basing points. As a matter of fact any such inference is not well founded. "Phantom freight" and the discrimination it embodies against important consuming sections still exist in substantial amounts in various important steel products. It will always exist in the basing point system so long as given product is priced on a point other than its place of production and shipment (assuming local sales are made by non-basing point mills) and so long as it is priced for delivery by a mode of transportation higher than that actually employed.

Actual instances and illustrations of the substantial amounts of "phantom freight" existing at the present time may be cited. The following consumers' goods are produced in large quantities at Sparrows Point (Baltimore) but are still priced on a Pittsburgh base: Butt weld pipe, Lap weld pipe, cold rolled strip, cold rolled sheets, tin plate, plain wire and nails and staples. Purchasers of these goods in Baltimore are charged Pittsburgh Plus by Baltimore producers. This involves the addition of "phantom freight" from Pittsburgh to Baltimore amounting to \$6.00 per ton. A subsidiary of the Corporation produces plain wire and nails at Allentown, Pennsylvania, but the price is still based on Pittsburgh. Allentown purchasers of these consumers' goods are charged Pittsburgh Plus involving "phantom freight" from Pittsburgh to Allentown of \$6.20 per ton.

Moving to the middle west, hot rolled sheets and plain wire are produced at Kokomo, Indiana, by the Continental Steel Corporation and the same producer produces hot rolled sheets at Indianapolis. The price of the latter product at Indianapolis is based on Middletown, Ohio. Indianapolis purchasers are charged Middletown Plus. This involves the addition of "phantom freight" from Middletown of \$3.80 per ton. Kokomo prices for hot rolled sheets and plain wire are based on Gary and Chicago. Kokomo purchasers are charged Gary or Chicago Plus which involves "phantom freight" of \$3.60 per ton on sheets and \$4.00 a ton on wire. A mill at St. Louis produces Butt weld pipe but bases on Chicago. This involves a St. Louis price equivalent to Chicago Plus including \$4.80 a ton "phantom freight" from Chicago. A mill at Pueblo, Colorado, produces large

quantities of heavy structural shapes, light structural shapes, universal plates, hot rolled strip, merchant bars, concrete reinforcing bars, billets and blooms for forging, plain wire, nails and staples, barbed wire, wire fencing and bale ties. It bases prices for these products on Chicago and Gary. To local purchasers in Colorado, the addition of "phantom freight" from those basing points is required by the basing point system. This amounts to \$19.60 per ton.

There are two vital and complementary aspects of "phantom freight" such as described above. The more obvious one is that purchasers who are located at or near the non-base mill and buy such products for re-manufacture, are handicapped by the amount of "phantom freight" in competition with rivals located at or near the basing point. Written complaints from such handicapped purchasers were presented by the Federal Trade Commission in its report to the President in November, 1934. (Report pp. 19, 20, 25, 26). The less obvious but scarcely less important aspect of "phantom freight" is that the handicap may be so great as to preclude the establishment of re-manufacturing industries at or near the non-basing mills or else choke their development. Doubtless the "phantom freight" to Colorado and adjacent states is enough to forestall the establishment of re-manufacturing industries there and then utilization of the numerous steel products made in Colorado, but which are priced on a Chicago plus basis.

The effect of "phantom freight" in crippling or preventing the development of re-manufacturing industries is greatly enhanced by the ever present factor of waste. Every steel re-manufacturing plant necessarily wastes some of the rolled steel products which form its raw material. In some cases this may amount to 50% of the rolled steel products at purchases. When "phantom freight" has to be paid on raw material of which so much must be wasted and resold as scrap the burden may readily become too heavy for re-manufacturing to emerge or to survive even in the vicinity of raw material supplies, and even though the "phantom freight" without the factor of waste would not have been enough to have that effect. Competitors at basing points, without the handicap of "phantom freight" would have a crushing advantage. In the Pittsburgh Plus case it was shown that with a 30% waste factor, "phantom freight" to Chicago was in effect increased from \$7.60 to \$10.80 per ton and this made it impossible for a Chicago re-manufacturer to compete even in Chicago with a Pittsburgh competitor. (Com. Ex. 6801, Docket #760)

It can hardly be said that such conditions involve only "abstract criteria" and do not represent "tangible evidence."

THE SO-CALLED "ABSORPTION" OF FREIGHT CHARGES IS INHERENT IN THE BASING POINT SYSTEM AND THE AMOUNTS ABSORBED ARE PROPORTIONED TO THE SYSTEM'S OBJECTIVE OF MAINTAINING IDENTICAL DELIVERED PRICES

Just as the basing point system frequently requires the collection of more than the actual freight in the exact predetermined amounts necessary to produce identical delivered prices, it also frequently requires the acceptance of less than the actual freight in the exact predetermined amounts necessary to accomplish that end. Instances of the latter type are loosely and inaccurately called "freight absorption." Just as "phantom freight" is not freight at all but merely a graphic characterization of a certain type of addition to the base price, so freight that is said to be "absorbed" is not freight at all but is merely a characterization of a certain deduction from the base price and consequent reduction in mill net return. "Freight absorption" occurs wherever the actual freight of the shipping mill exceeds the freight from the governing basing point mill which forms the transportation element in the delivered price.

The Corporation admits that the term "freight absorption" is misleading but only on the ground that it implies the mills pay freight charges which the consumers ought to pay. (Ex. 1418.) The real respect in which it is misleading is that it is nothing but a price reduction to purchasers located at the delivery points to which freight is "absorbed." This is implied in the same paragraph that makes the admission last referred to. Moreover, since the mills ordinarily do not pay or prepay freight charges, it is not apparent that the term is misleading in the respect claimed.

The Corporation also states that "freight absorption" is "an element more or less peculiar to the steel industry." (Ex. 1410.) "Freight absorption" is not peculiar to the steel industry. It occurs in all delivered price systems wherever the actual freight exceeds the imputed freight element in the delivered price. In another pamphlet the Corporation argues that "freight absorption" is not rare or confined to the steel industry, illustrating this by reference to the sale of specialties such as candy and cigarettes and by individual concerns such as depart-

ment stores and corner grocers. In this connection the Corporation states that some customers of retailers carry their purchases home while others have them delivered at no extra cost, that candy bars and cigarettes are sold at uniform prices throughout the country at varying distances from the place of production. (Ex. 1418.) Such arguments ignore the fact that department stores and corner grocers freely permit their customers to take their purchases with them either to their homes or to any other place they wish, while under the basing point system this privilege is denied. Such arguments ignore the fact that the commodities involved are not standardized as to quality as are steel products. More important than all else, these arguments ignore the fact that the sellers referred to do not "absorb" the cost of delivery to the exact amount necessary to make their delivered prices to the consumer identical with those of competitors. It is common knowledge also that candy bars and cigarettes are not sold at uniform prices all over the country so far as retailers are concerned.

The Corporation quotes from the NRA report to the effect that "discrimination and freight absorption are natural results of bona fide competition." (Ex. 1418.) At best this is only bare assertion. It is obviously untenable when applied to a situation where the "freight absorption" is systematically practiced by an organized group of competitors, where they simultaneously supplement it with "phantom freight," and where the coincident identity of delivered prices depends upon those two complementary practices.

The Corporation states that one reason for "freight absorption" is that capacities of steel mills in areas containing raw materials "are usually large enough to supply much more than the local demand." (Ex. 1418.) This ignores the fact that there is considerable cross-hauling of the same product from one mill location to another and even beyond, in violation of the economic principle that the normal movement of standardized commodities is from areas of excess production into deficit areas and not from one surplus area to another. The Corporation states:

"It is natural and proper for a producer, in an effort to keep his mill busy, to sell steel in the different consuming areas where business is available, in this way realizing varying mill net returns on his business, the variance representing freight absorption." (Ex. 1418.)

This statement errs in treating the variation in mill net returns as being entirely the result of "freight absorption" when it is also the result of "phantom freight." It omits an important fact necessary to determine whether it is "natural and proper," namely, that the purpose and effect of this systematic "freight absorption" is the consistent creation of identical delivered prices.

Since the Corporation uses only hypothetical illustrations of "freight absorption" it is impossible to gain from its pamphlets any idea as to the extent and amount of that factor. The most recent and authoritative information as to the extent of the practice of "absorbing" freight is that obtained by the Department of Justice through questionnaires answered by the industry. From such answers, representing a cross section of shipments for one month, it appears that the steel mills "absorb" freight on 70 per cent or more of their volume of business and that the amount of such "absorption" on various products ranged from \$1.25 to \$6.43 per ton. In the Federal Trade Commission's report to the President on Steel Sheet Piling in June, 1936, it was pointed out that on one set of bids the Corporation and Inland each offered to reduce their mill net return by \$6.30 a ton below the price first bid; that Jones & Laughlin offered to reduce its mill net return by \$7.30 a ton, and that Bethlehem offered to reduce its mill net return by \$10.70 a ton. Some of these reductions resulted from a waiver of "phantom freight" involved in the substitution of water transportation for all rail and others involved a further enlargement of "freight absorption." (FTC Report, pp. 30, 31.)

The Federal Trade Commission's report to the President in November, 1934, showed that Buffalo producers absorbed freight on structural shapes to Chicago amounting to \$8.00 per ton and to Pittsburgh of \$6.40 per ton, thereby reducing their net returns by those amounts compared to sales made in Buffalo. A Baltimore sheet producer "absorbed" \$7.70 per ton on about 40 per cent of his total distribution which was shipped to Michigan territory, this involving a corresponding reduction in his mill net compared with sales in Baltimore. (FTC Report, p. 13.)

In an extended discussion of cross-hauling, the Corporation treats that subject as a phase of "freight absorption." (Ex. 1418.) As a matter of fact, it is just as much a phase of "phantom freight." It is stated that strictly speaking the term cross-hauling means shipments which cross each other and "the criticisms are often so phrased as to create a mental image of freight trains crossing in opposite directions on parallel tracks, loaded with identical products." (Ex.

1418.) As a matter of fact, that is the correct mental image of cross-hauling as applied to the basing point system. The Corporation does not deny the correctness of that image but treats it as an extreme case. The mental image described in the quotation, however, is less extreme than the actual situation in that shipment of identical products not only frequently cross each other but the mills frequently ship into each other's home towns and beyond at identical delivered prices. Following up its contention that "freight absorption" is the result of bona fide competition, the Corporation also states that "in fact, cross-hauling is the necessary result of competition." (Ex. 1418.) The truth is that under the basing point system, cross-hauling becomes just as systematic and deliberate as "freight absorption" and "phantom freight." The combined range of these determines the extent of cross-hauling that may occur in any given instance.

Concluding its discussion of cross-hauling, the Corporations says:

"Before cross-hauling is condemned, it should be proven that the alternative would not involve economic costs, by way of transportation or otherwise, in excess of the supposed saving which would result. Not to be overlooked is the interference with competition which would necessarily be the consequence of any artificial limitation of marketing territories. Freight absorption is primarily produced by competition in the steel industry." (Ex. 1418.)

Again the Corporation says:

"The alleged economic waste resulting from cross-shipments must be balanced against the countervailing advantages to the public of a competitive system and also against the economic losses which would follow from artificial limitations of marketing territories." (Ex. 1418.)

In making the contentions embodied in these last two quotations the Corporation sets up a requirement which it elsewhere admits cannot be met. It elsewhere claims that it is impossible to measure quantitatively the amount of unnecessary transportation costs and equally impossible to measure the cost of any interference with present practices. (Ex. 1418.) It also admits that there would be a small saving from an f. o. b. mill price system because of "its elimination of a certain amount of transportation costs." It then says the amount of such saving could not be estimated. (Ex. 1418.) It is not necessary that there be any accurate estimate or measurement of the amount of unnecessary cross-hauling resulting from the basing point system or of the cost of any interference with it. The basic issue is whether the system which produces unnecessary cross-hauling is a collusive interference with competitive forces. If there be such interference and it be removed, there would go with it only the type of cross-hauling which was produced by it. The attempt to put the burden upon critics of cross-hauling resulting from the basing point system is equivalent to putting upon them the burden of showing that restoration of price competition would reduce prices and dispense with unnecessary transportation costs. This seems very much like requiring those who would attack a combination in restraint of trade first to justify the theory that competition would produce lower prices and thus be in the public interest. It would apparently require those suggesting procedure under a statute which embodies long-established public policy to justify the philosophy of the statute before proceeding under it.

Speaking before the American Iron & Steel Institute in 1928, Charles M. Schwab referred to cross-hauling as one of the principal instances of waste in distribution and that "it is manifestly uneconomic for a steel manufacturer in Chicago to ship 100,000 tons of steel to Pittsburgh at a time when a Pittsburgh manufacturer is shipping a like quantity of like material from Pittsburgh to Chicago." (FTC Report to the President, Nov., 1934, p. 13.) Mr. Schwab also said that "The net result of the cross-hauling of materials has not been to increase the output of the individual producers by any appreciable amount" but has "merely served to dissipate a part of their profits in unnecessary transportation." (Ibid, p. 14.)

The Corporation says that the essence of the criticisms of cross-hauling is that "transportation costs" are so high as to involve economic waste and inordinately high prices. To meet that the Corporation immediately asserts that the industry does not have "excessive distribution costs." To support this it cites a study of distribution costs made by the Association of National Advertisers covering some 312 manufacturers. An examination of that study discloses that transportation costs are merely one of the lesser elements in distribution costs. The study covers 29 industries, including 19 producing consumer goods and only 10 producing industrial goods. Iron and steel products do not have the third lowest "distribution costs" of the 29 industries investigated, as the Corporation states. There are 5 consumer goods industries and 3 industrial goods industries that show lower distribution costs than iron and steel and their products. Iron and steel have

the third lowest "transportation cost" among the industrials, but there are eight consumer goods industries that show lower transportation costs. (Ex. 1418.)

The assertion is then made that the steel industry proper had even lower distribution costs than the companies included in the study. No description is given in the study as to what concerns are included under the classification "Iron and Steel and Their Products." The study defines transportation costs as including "out freight, cartage and express (paid or allowed); long distance truck (own trucks) local delivery; in freight paid on returned sales." ("Analysis of the Distribution Costs of 312 Manufacturers" published by Assn. of National Advertisers, (N. Y. 1933) pp. 64, 106.) It is submitted that the Corporation has no ground for comparing transportation costs under the above definition with transportation costs in the steel industry. The study obviously includes costs of transportation which represents an outlay by the seller. By contrast the greatest cost of transportation in the steel industry does not represent an outlay by the seller, since the buyer pays the freight to the common carrier, deducts it from the face of the invoice and remits the balance to the seller. Moreover, the fact that net sales volume is the basis for calculating the percentage of transportation costs shows that such costs could not include costs of transportation which do not pass through the books of the shipper. The Corporation elsewhere makes the point that the cost of transportation of steel products is relatively heavy in proportion to the delivered price, while in the study referred to the transportation cost of "iron and steel and their products" is only 1.30 per cent of the net sales volume.

THE CORPORATION RECOGNIZES THE SYSTEMATICALLY VARYING MILL NET RETURNS REPRESENTED BY "PHANTOM FREIGHT" AND "FREIGHT ABSORPTION" ARE DIFFERENCES IN PRICE AND CONSEQUENTLY DISCRIMINATIONS IN PRICE

In its findings of fact and order to cease and desist in the Pittsburgh plus case, the Federal Trade Commission decided that the price actually received by the Corporation's subsidiaries was their mill net return, that this systematically varied in proportion to the amount of the differences between the actual freight and the freight from Pittsburgh, the basing point, and that this constituted discrimination in price in violation of the Clayton Act. The amendment of that Act by the Robinson-Patman Act in 1936 has given rise to legal questions regarding price discriminations that are somewhat different from those previously arising under the Clayton Act.

It is significant and important nevertheless to note how closely the Corporation follows the Federal Trade Commission's concept of the basic meaning of the word "price" in the Pittsburgh Plus Case and in identifying price with mill net return. The Corporation is not always consistent, however, in taking that position.

The systematic character of variable mill net returns is described by the Corporation when it says, regarding a basing point mill:

"In general the mill will realize its highest mill net returns on sales to its nearest customers and progressively lower mill net returns as the distance from the mill to the consumer increases. The same is true of the mill net returns realized by non-basing point mills." (Exhibit 1418)

The recognition that mill net return is the equivalent of price is apparent in recent testimony of officials of the Corporation before the Temporary National Economic Committee. Mr. Fairless, president of the Corporation, defined mill net yield as "our realized prices" and said that "realized price means just what it says it means. What we get for our goods, what we actually get for it." (Verbatim Record, TNEC Hearings November 7, 1939, p. 211). Mr. Gregg, a vice president of the Corporation, referred to "the mill return price" and said, "what the purchasers pay constitutes our mill net" (Ibid November 6, p. 192; November 7, p. 214). A chart prepared by the Tennessee Coal & Iron Company, a Corporation subsidiary, and introduced before the T. N. E. C., contains one column which is headed "Actual Net Sales Prices" (Exhibit 1394; Verbatim Record, November 7, pp. 214 and 235).

The Corporation's recognition that mill net return is the equivalent of price is further shown by certain statements in Exhibit 1418. In justifying the collection of "phantom freight," the Corporation quotes from a report by N. R. A. as follows:

"In an extreme case, the producer who charges his nearby customers the highest prices may not be able to afford to charge them any less, despite the apparent contradiction involved in his voluntarily making lower prices to other customers who are farther off, that is, he may conceivably need all the benefit he can get from the utmost discrimination which his market situation permits, in order to

cover his total costs at all. Assuming such a case to exist, he would merely be forced out of production, and the customer would gain nothing in the way of lower prices, but would lose the convenience of being able to get service from a nearby source. This extreme case is not very likely to be found in practice, but it is possible." (Exhibit 1418.)

The Corporation prefaced its use of the above quotation by stating that—

"A still stronger case is presented by the steel mill which needs high prices in its most profitable territory in order to survive. A new producer, or any producer in a period of low demand, may require all the profit it can realize from sales to its nearest customers in order to cover its total costs."

The above quotations plainly imply that mill net returns are prices. The argument goes to the extent of claiming that the entire industry needs all the discrimination it can get as the Corporation says that any producer in a period of low demand may find need of the utmost discrimination which its market situation permits. In passing, it may be observed that if such discrimination is necessary in order to cover a producer's total costs, there is no assurance that it may not go beyond that point. If a producer may utilize discrimination to cover its total costs, there is apparently nothing to prevent him utilizing it to increase his profits also.

When the Corporation undertakes to justify "freight absorption" and the consequent acceptance of varying mill net returns from different customers, it again quotes from the report of N. R. A. The quotation definitely shows that N. R. A. recognized the mill net return as the equivalent of price.

"Producers regularly set a lower minimum when figuring a special price to capture a special class of new business than when figuring a general price for the main body of their sales. For special prices, the minimum is likely to be close to out-of-pocket or variable costs, while for a general price, producers will not bid below the total costs which they must cover if they are to keep running. The difference between these two levels is frequently substantial and lies at the bottom of the practice of absorbing freight to extend a producer's sale area." (Exhibit 1418.)

Again quoting from the N. R. A. report, the Corporation says that freight rates to distant territory "must be absorbed if a producer is to extend his marketing area toward the location of a competing producer and into the area where that competitor is now selling unless he voluntarily reduces his price on nearby sales to less than existing competition forces him to accept" (Exhibit 1418).

Notwithstanding its recognition as above shown that mill net return and price are equivalents, the Corporation nevertheless contends that variations in mill net returns from its different customers are not discriminatory prices. Even on this point, however, its position is not consistent. The Corporation quoted from the N. R. A. report to the effect that in an industry marked by the characteristics of the steel industry "discrimination and freight absorption are natural results of bona fide competition" (Exhibit 1418).

In another place where it discusses variable mill net returns, the Corporation states "This is not a 'discrimination' in any sense of the word; it is competition" (Exhibit 1418). By contrast with the above shown recognition that mill net return is the equivalent of price, the Corporation states elsewhere that "Actually the price to the buyer is the delivered price" (Exhibit 1418).

The range in the variable mill net returns of a given mill is marked on the one hand by its maximum "phantom freight" and on the other hand by its maximum "freight absorption". Information is not readily available that will permit of generalizations as to the range of variable mill net returns either as to a particular mill or as to the industry as a whole. However, some idea may be obtained as to the large sections of the country that may be affected by them on the strength of the Corporation's own statements. In connection with a hypothetical illustration of variable mill nets resulting from the use of water transportation and where the mill was receiving 75¢ per ton more from a customer at one point than a customer at another point, the Corporation stated:

"Such situations comprise a vast majority of shipments by water and include most of the water shipments to the Pacific Coast, the Gulf of Mexico, lower Mississippi River points and principal Great Lakes consuming centers." (Exhibit 1418.)

Some idea may be gained of the extent of variation in mill net returns by the figures and graphs presented by the Corporation in Exhibit 1409, Section C. It there shows the mill net yield on various products by comparison with the base price, and in that connection the statement is made again and again that "there

has been even more fluctuation in the mill net yield, that is, the amount per pound actually received by the United States Steel Corporation subsidiary after deduction of cost of delivery". Similar statements are made as to commodities sold on a per ton basis.

The Corporation devotes some twenty-five pages of Exhibit 1418 to a detailed discussion of such subjects as "phantom freight", "freight absorption" and "cross hauling" all under the head of "Alleged Price Discrimination". While the variation in mill net returns resulting from "phantom freight" and "freight absorption" of various types is freely admitted, described and illustrated, the discussion as to whether such variation constitutes price discrimination is extremely meager. In fact, there is little more than a general denial at the outset of the discussion that variations in mill net returns constitute discrimination in price. It is stated that the fallacies in the theory that such variations are discriminations in price "have been discussed elsewhere in this study" (Exhibit 1418). There is no such discussion beyond attempts to justify such variations. Nowhere is issue taken with the proposition that the mill net return is the actual price received by the seller. Referring to the criticism of alleged price discrimination as embodied in variable mill net returns, the Corporation states "If it has any application, it is true only with respect to mills not at basing points, of which there are few today, and with respect to mills at basing points only on sales made within areas nearest another mill" (Exhibit 1418). Correcting the latter part of this statement to make it apply to basing point mills "only on sales made within areas controlled by other basing points" it is an admission that comprehends practically the full scope of the criticism. The statement that few mills are not basing points is inaccurate. On some of the most important products the number of basing points is quite small compared to the number and location of the mills.

In its discussion of variable mill net returns, the Corporation is at least consistent in claiming that they are the result of competition and are not indicative of its absence. Thus it says that "because of competitive conditions in the industry, steel mills realize variable mill net returns in selling to different areas" (Exhibit 1418). In discussing "phantom freight" under the head of "Alleged Price Discrimination", the Corporation states that the behavior of nonbasing mills "erroneously described as realizing phantom freight, is not to be construed as the critics construe it—as evidence of the absence of competition. It is, on the contrary, truly competitive behavior". It is then said to be of a different type from that assumed in the economic conception of perfect competition in a perfect market (Exhibit 1418). The claim that variable mill net returns result from competitive conditions obviously begs the question. Moreover, it is not the mere fact of variability that is significant; it is the systematic character and pattern of it. In every case it is exactly the amount that is necessary to equalize the delivered prices of all competitors at any given destination. The so-called competitive behavior in charging "phantom freight" involves discrimination that serves no purpose but that of automatically and systematically reflecting identical delivered prices.

The Corporation argues that criticisms directed to variable mill net returns place undue emphasis on such returns; that the customer is interested only in the delivered price and not in what "the mill ultimately receives (the mill net return)", and that the delivered price to a customer near the mill is generally lower than the delivered price to customers located farther away "except those located nearer another source of supply". The last quoted statement should be corrected to read "except those located nearer another basing point" (Exhibit 1418). As to a customer being interested only in the delivered price, he is probably more interested in obtaining the lowest possible delivered cost and in the fact that the systematic variation in mill net returns produces or reflects the identical delivered prices which prevent the delivered cost being lower from one mill than from another. There is no significance in the fact that the delivered price to a customer near the mill may be lower than to a customer farther away. The difference in freight rates would account for that, and the basing point system is entitled to no credit. It is just as valid to say that the Corporation's argument places undue emphasis on the delivered price and unduly minimizes the importance and significance of sales made at more or less than the basing point prices.

The Corporation quotes from the N. R. A. report to the effect that if purchasers at non-basing points "are discriminated against arbitrarily by the system then the establishment of new basing points will be likely to remedy the case" (Exhibit 1418). This is not true. Even though every producing point were made a basing point, there would still be "freight absorption" and, consequently, vari-

ation or discrimination in the mill net returns whenever one basing point mill sells in territory at delivered prices controlled by the base price of another basing point mill. The Corporation states "The previously existing scale of delivered prices in the territory around the non-basing point mill can, and undoubtedly will, remain about the same even though the mill becomes a basing point" (Exhibit 1418). If this be true, there would be no material reduction in the price level if all mills were made basing points.

As a part of its argument that variation in mill net returns is not discrimination in any sense of the word the Corporation states that "As between a customer nearby and a customer far away, there is no uniformity of conditions of purchase on which properly to base a charge of discrimination." (Ex. 1418). Such a statement is based on a theory of discrimination which ignores the ruling of the Supreme Court to the effect that the discrimination forbidden by the Clayton Act was not limited to discrimination which lessens competition among purchasers but includes discrimination which lessens competition among sellers. (*Van Camp & Sons Co. v. American Can Co.*, 278 U. S. 245). The systematic pattern of geographical discrimination in mill nets under the basing point system is the alter ego of identical delivered prices. The argument also takes no note of the fact that there are discriminations which do substantially affect the ability of purchasers to compete with each other. Illustrations of such conditions may be found in the inability of Pacific Coast fabricators to compete toward the East with Midwestern and Eastern fabricators who are given free access to the West Coast, and the arbitrarily lower price given to purchasers of certain products located in the State of Michigan. Purchasers of the same products located outside the state are in competition with Michigan purchasers, yet are charged higher prices.

Arguing in justification of the realization by a producer of lower mill net returns from his distant customers than from nearby ones, the Corporation states "This enables him to operate his mill at lower unit cost and then to sell to the nearby consumer for less than he otherwise could." (Ex. 1418.)

It is equally true that the higher mill net returns from nearby customers enable him to operate at lower unit cost and to at least as great a degree as the lower nets from distant customers. The argument is analogous to the familiar one for dumping in foreign trade. The statement quoted is the equivalent of saying that by discriminating among customers the intent and effect is to realize a lower average price than otherwise.

The power to determine how much more some purchasers and how much less others shall contribute to the seller's treasury and the systematic employment of that power to make delivered prices of all sellers identical, would seem to be the essence of monopoly. It involves the power to decide how the total price burden shall be distributed among various purchasers and among the various sections of the country and consequently what sections shall be developed or retarded. By the same token it involves the power to decide how the total profit burden for the industry shall be distributed among purchasers and among sections. In the Pittsburgh Plus case it was shown that the margin between costs of production and selling prices on various products varied enormously as between Pittsburgh, Chicago, Duluth and Birmingham. On bars the margin at Pittsburgh was slightly over \$2.00 a ton as against about \$8.00 a ton at Duluth and Birmingham and nearly \$14.00 a ton at Chicago. If the Birmingham price differential were not applied and the price had been based on Pittsburgh, the margin at Birmingham would have been increased to over \$18.00 a ton. On structural shapes the margin at Pittsburgh was slightly over \$2.00 a ton as against about \$7.00 at Birmingham and over \$18.00 at Chicago. If the Birmingham differential were not applied and the price had been based on Pittsburgh the margin at Birmingham would have been increased to nearly \$18.00 a ton. On block sheets the margin at Pittsburgh was slightly over \$10.00 a ton compared to over \$25.00 a ton at Chicago. On plates the margin at Birmingham was about \$7.00 per ton as against nearly \$10.00 a ton at Pittsburgh and almost \$18.00 a ton at Chicago. If the Birmingham differential were not applied and the Birmingham prices were based on Pittsburgh, the margin would have been increased to nearly \$18.00 a ton. (F. T. C., Exhibit 6853 in Pittsburgh Plus case, D. 760)

The above facts emphasize the vital importance of a knowledge of costs of production in any attempt to determine (once the test of competition is discarded) whether prices are reasonable or whether the prices and profit burden is equitably distributed among purchasers and among sections.

THE STEEL INDUSTRY'S USE OF THE BASING POINT SYSTEM CONFORMS TO THE ECONOMIC SPECIFICATIONS OF MONOPOLY AND IS NOT CONSISTENT WITH THE ECONOMIC CONCEPTS OF A COMPETITIVE ECONOMY.

Bearing in mind the "tangible evidence" of its origin, its purpose, its collusive methods of implementation and its arbitrary characteristics and that all these elements unite to the single end of putting all competitive sellers on an exact equality of delivered prices to any given purchaser at any given destination, the Corporation's claim that objections to the basing point system are founded wholly on "abstract criteria" appears somewhat overdrawn. As a matter of fact the Corporation's defense of the system is almost entirely based on "abstract criteria" and not on "tangible evidence". Even in the realm of "abstract criteria" however, the assumptions and conclusions of the Corporation are economically and logically unsound.

In considering the Corporation's economic concept of price competition it should be remembered that it holds to the theory that for any competitor with a lower freight rate to any customer to give him any lower delivered price than others with a higher freight cost is "giving a lower price than competition forces him to give" and is "following some sort of a non-competitive principle, rather than a competitive one." (Ex. 1418.)

(a) *The Corporation's Claim That Identical Delivered Prices Result From the Perfect Competition of a Free Market.*

An attempt is made to discredit the economic theory of competition and at the same time to appropriate the benefit of that theory for the basing point system. First, the classical economic concept of theoretically perfect competition "in a market" is set up in order to show that the concept "is an abstraction and exists nowhere". (Ex. 1418.) The quotation cited from Dr. Viner's testimony in the Cement case to support such contention does not support it. He testified that agricultural products are very nearly a fully competitive industry and that the only thing that prevented it being so was recent governmental regulation. The Corporation implies that present-day economists who use the theoretical concept of perfect competition are unaware that there are deviations from it in the world of practical affairs and in this respect are unlike the classical economists who formulated the concept. Present-day economists are no doubt fully aware that there have been increasing deviations from that concept in the world of practical affairs and it is to such deviations that their criticisms have been directed.

The Corporation appears to have no objection to the theoretical concept of "imperfect competition" as used by economists and states that it "covers the whole range of conditions between theoretical perfect competition and theoretical perfect monopoly." (Ex. 1418.)

This is substantially the same as Dr. de Chazeau's description of "administered prices". Testifying before the Temporary National Economic Committee, he said that "Within the group of prices which are called administered prices you may have everything from a purely competitive situation to a very monopolistic situation." (Verbatim Record, T.N.E.C. Hearings, November 6, 1939, p. 182, 2nd column.)

Obviously, the crux of the problem is the nature and degree of imperfect competition that is embodied in the basing point system. In any event, no conceivable combination of competitors or monopoly could produce any greater identity of delivered prices than the basing point system does when it is adhered to.

After having concluded that perfect competition is "an abstraction and exists nowhere" (Ex. 1418), the Corporation proceeds to claim that identical delivered prices are the result of perfect competition as conceived by the economists in a perfect market. Thus, it says—

"It is to be expected * * * that the identity of delivered prices which would result from perfect competition in a single market at any one time will take the form of identical delivered prices in the steel industry." (Exhibit 1418.)

Again the Corporation says that it is quite erroneous to imply, as does the Federal Trade Commission, "That identity of prices at any given time is necessarily evidence of absence of competition." It then says:

"Quite the contrary is true. In any competitive market, the prices quoted by different producers at any given time for any staple product will naturally tend to be uniform." (Ex. 1418.)

The Corporation goes on to assert that—

"Identical delivered price quotations would occur under any free competitive system to the extent that competitors' bids could be estimated, since buyers refuse

to pay more to one producer than to another for a staple product." (Ex. 1418.) This statement is made in support of the claim that "The basing point system is not per se the cause of identical bids." (Ibid.) Yet, in another place it is said that "Substantial identity of delivered prices results" from the absorption of freight to go into distant markets. (Ex. 1418.) This ignores the systematic and reciprocal nature of so-called "freight absorption" and of "phantom freight" which the system requires. If these were not applied systematically and reciprocally, identical delivered prices could not result. Except on a systematic and reciprocal basis they could not take place at all without destroying the system itself. The economic concept of price uniformity in a free market never contemplated that no competitor would undersell his rivals.

Although as shown above, the Corporation twice claimed the benefit of the theory of perfect competition in a market to explain identical delivered prices, it also said in between the two quotations given that,

"Neither identical delivered prices nor delivered prices of any kind, accord with the theory of perfect competition because such theory assumed a freightless market in which neither seller nor buyer needed to be concerned with transportation costs." (Ex. 1418.)

While prices in the classical market were freightless, the buyers and sellers were always concerned with transportation costs from the market to the place of use. The relative costs of transportation from various markets to the place of use was a matter of concern just as it would be now if buyers could buy steel f. o. b. mill. The Corporation says that critics claim that identical delivered prices prove the elimination of competition, "because under perfect competition such a thing would not often happen, i. e., the different transportation costs would usually cause different delivered prices." (Ex. 1418.) However, it does not dispute the result and, in fact, substantially admits the conclusion on the next page where it says that

"Under a f. o. b. mill system, the buyer would add freight to the mill price and buy from the source which permitted the lowest delivered costs." (Ex. 1418.)

When the three last quoted statements are considered side by side they are equivalent to an admission that an f. o. b. mill method of pricing more nearly accords with the theory of perfect competition. Nor is it true as the Corporation says (Ex. 1418) that criticisms of the basing point system assume that perfect competition and its complete absence or monopoly are the only alternatives. The basing point system is not the only obstacle to perfect competition and there should be no illusions about the attainability of the ideal. The practical question is whether existing restraints on competition are reasonable under existing law and the public policy embodied therein.

(b) *The Corporation's Distortion of Economic Theory as to the Nature and Location of Free Markets.*

The confusion which may be injected into a discussion of "abstract criteria" is illustrated by the Corporation's attempt to appropriate the benefit of classical economic theory as to the effect of competition on prices "in a market." In order to give some semblance of logic to this attempt it is necessary to postulate the market as being at destination. The classic theory of free markets originated before basing point systems were thought of. It did not deal with the hybrid of a price for goods at or in a market plus transportation costs from the market to various destinations.

The Corporation states that the attitude of the Federal Trade Commission toward the basing point system and its proposed substitute of f. o. b. mill prices "are obviously manifestations of a belief that the market for steel is, or should be, at the mill, and is not, or should not be, at the destination." (Ex. 1418.) The Federal Trade Commission has never taken the position that under the basing point system the market is at the mill. It has taken the position that the system, with its refusal to sell f. o. b. mill, its insistence on selling only at delivered prices and the resulting identity of delivered prices, is a device for closing not only the market at the mill but by eliminating price competition, closing the market everywhere in the sense that a market is defined by the economists. There is an important distinction between claiming that the market is at the mill when the mills refuse to sell f. o. b. mill and claiming that the market should be placed at the mill as a means of preventing identical delivered prices and the consequent elimination of price competition. Even under the delivered price system, however, there is an important question as to whether title does not actually pass to

the buyer at the mill and thus make the mill the market place for the transaction of purchase and sale. The importance of that question and the change in the industry's attitude toward it was shown in connection with the efforts of the industry to induce the railroads to assist the industry in preventing diversion in transit by the consignee. (See F. T. C. Report to President on Steel Sheet Piling, June 10, 1936, p. 24.)

In another place the Corporation refers to "the contention of the Federal Trade Commission that the true market for steel is at the mill, and that the basing point method, by providing a means for quoting delivered prices at each destination, has destroyed or injured the market and eliminated competition." (Ex. 1418.) The above quotation is a more nearly accurate statement of the Commission's position.

The Corporation seems to imply some doubt as to its own position when it states, "If there is any true market for steel, it is at the buyers' doors." (Ex. 1418.) In discussing the subject of cross hauling, however, the Corporation adopts some terminology which can hardly be reconciled with its contention that destination is the market in the sense used by economists. Dr. de Chazeau is credited with having coined the term "market interpenetration" as a preferable substitute for the term "cross hauling." (Ex. 1418.) It is plain that a mill or producing market may penetrate various destinations or consuming markets and that one producing market may penetrate another. It would seem equally clear that destinations or consuming markets cannot penetrate each other. The Corporation's adoption of such terminology is repugnant to the concept of a market at destination. The economist's concept of the steel market as stated by Dr. Wm. Z. Ripley in his testimony in the Pittsburgh Plus case was in part as follows:

"The market * * * is a place (and here I think I am in agreement with Dr. Fetter) where a commodity is sold, and this commodity we are considering here is steel. The market for steel is in Pittsburgh or Chicago or Johnstown or Bethlehem or Duluth or Birmingham, or what-not: but the market, as I see it, is not at the place where some steel and some freight and some wind have all three been hitched up together to form a kind of a combination—in other words, where an artificial freight rate, which never was paid on that product, is figured in on it, making up the delivered price. That does not seem to me like a market. I think entirely in terms of that market at Chicago, where we are dealing only with steel." (Transcript of Testimony, Pittsburgh Plus case, p. 18240.)

In order to follow through with its contention that the market is at destination the Corporation makes certain inaccurate statements regarding payment of freight. It is asserted that when one producer meets the delivered price quoted by other producers nearer to a consumer's destination, "He must pay the freight necessary to transport the steel product to the consumer." (Ex. 1418.) It also refers to the necessity of a producer selling a large part of its output in distant markets and of it "paying large amounts of freight to each such market." (Ex. 1418.) In an overwhelming majority of cases and on an overwhelming proportion of the shipments, sellers of steel do not pay or prepay the freight. The buyer pays the freight to the railroad, deducts it from the face of the invoice which shows the delivered price and remits the balance to the seller. Under those conditions it is misleading for the Corporation to make the statements above quoted and to claim that "delivered costs are an important part of total costs." (Ex. 1418.) They are not a part of the seller's costs at all.

(c) The Corporation's Admission that Price Discrimination is not Consonant with Perfect Competition.

The Corporation states that under conditions of perfect competition it is "impossible for sellers to get higher prices from some buyers than from others." (Ex. 1418.) If this be true, then the possibility of getting higher prices from some buyers than from others becomes increasingly greater as competition becomes more imperfect and the greater the degree of monopolistic control the greater the possibility of getting higher prices from some buyers than from others. Since steel producers use the basing point system for systematically realizing higher prices from some buyers than from others, it corresponds more closely to the economic specifications of monopoly than of competition on the Corporation's own admission. The Corporation also admits that "variable mill net returns of the kind found under the basing point method do not represent the uniform market prices which would be expected if the assumptions of the theory of perfect competition were realized." (Ex. 1418.) Yet, as previously shown, it inconsistently claims that "The identity of delivered prices which

would result from perfect competition in a single market at any one time will take the form of identical delivered prices in the steel industry." (Ex. 1418.)

The Corporation says that the critics of identical delivered prices point out a discrepancy between that condition and the results to be expected under the theory of perfect competition "because the mill net returns of different producers quoting the same delivered price at one location are not the same." (Ex. 1418.) This is not an accurate or adequate statement of the critics' position. Not only do the mill net returns or prices of *different* producers vary but those of the *same* producer vary and in both cases the variation is the exact amount required to make the delivered prices of all producers identical at given destinations. In this connection it may be observed that fabricators of steel, like steel producers, have frequently located themselves in the best raw material areas and that for producers to realize higher prices from their nearby fabricator-customers is not only to deprive them of their natural advantage of location but to penalize them for it. As the Federal Trade Commission said in its report to the President in November, 1934, for the seller to monopolize the advantages of location inherent in the natural resources of a section to the exclusion of the buyer is but little different from monopolizing the resources themselves.

The Corporation's statement that it is impossible for sellers to obtain higher prices from some buyers than from others under conditions of perfect competition has no logical place in its argument unless it means to admit there is such discrimination among buyers.

(d) The Corporation's Contrast Between Physical Conditions in the Steel Industry and Concepts of Perfect Competition.

Drawing one of several contrasts between the concept of perfect competition and the natural physical conditions in the steel industry, the Corporation says that the concept calls for many separately owned mills at each mill location and that mills be scattered all over the country near consuming markets, while the steel industry is characterized by a small number of producers with large-scale producing units and a small number of large buyers. (Ex. 1418.) The Corporation presents a tabulation which shows that there are nine companies whose combined capacity represents 81.8% of the total annual capacity of the country. The tabulation does not disclose the number of companies which comprise the remaining 18.2 percent. (Ex. 1410.) It is stated also that "The formation of a new integrated steel company, except by merger, would not be likely" because of the large capital investment, the technological and organizational difficulties and the difficulty of obtaining an immediate market. (Ex. 1410.)

Given such facts it would seem all the more vital to preserve among the few large producers all the characteristics of price competition that are possible. Doubts should be resolved against any device or cooperative method that interferes with free competition among them. Otherwise, collusive price control will become almost automatic and absolute monopoly almost inevitable. It is not the fact, as the Corporation states, that the same general conditions are "true of all other Industries in our economy." (Ex. 1418.) Even though it were true it throws no light upon the competitive or monopolistic status of the steel industry. It is a matter of common knowledge that some other industries use systems of price control similar to the basing point system in steel. To that extent it merely confirms the statement of the Federal Trade Commission to the Temporary National Economic Committee last March to the effect that the steel industry "is a focal center of a monopolistic infection which, if not eradicated, may well cause the death of free capitalistic industry in the United States." (Exhibit 358.)

In one place the Corporation states with reference to the theory of perfect competition that

"If such a theoretical state of competition prevailed, each producer would take all the business he could get so long as the price yielded more than the additional cost of producing the additional ton of steel so sold." (Ex. 1410.)

In another place the Corporation states that under the actual conditions in the industry "in periods of restricted demand, knowing that anything above his 'additional' costs contributes something toward 'over-head' or 'fixed' costs which must be met in any event, the producer will cut prices below his average costs if he feels he can obtain additional business for his mills thereby." (Ex. 1410.) The above two quotations cannot be reconciled with each other. If the statement last quoted be accepted as a statement of actual conditions then those conditions would correspond to those set up in the first quotation as characteriz-

ing a state of perfect competition. Yet it is claimed in a footnote on the same page that if the Corporation's subsidiaries sold "at a price only equal to the additional cost of additional units or production" this would create estimated losses of about \$182,000,000 a year, far beyond any actual showing of the industry.

The Corporation quotes Dr. de Chazeau as pointing out the "basic fallacy" in the reasoning of most critics of the basing point system as follows:

"Intelligent explanation of the pricing problem in the steel industry has suffered from a failure of most commentators to distinguish between the basing point system as a medium or mere mechanism for the translation of policy into action and the economic roots of that primary policy itself." (Ex. 1410).

The same might be said of any price-fixing medium or mechanism and the economic roots of the desire to remove price competition. Even if the distinction stated were tenable, legal concepts permit taking hold of any system "as a medium or mere mechanism for the translation of policy into action" if that policy be one of destroying price competition.

(e) *The Corporation's Claim that the Price of and Demand for Steel are Unrelated.*

A remarkable effort is made to show that the steel industry is not subject to the generally accepted economic principle that the demand for an article varies inversely to its price. If this effort is soundly conceived and decreased demand does not reduce steel prices and increased demand does not tend to enhance them, then it would follow that some form of artificial price control is responsible for the price changes that do take place. The truth is that where artificial price control exists, it may or may not be powerful enough to resist the downward price pull of reduced demand but may yet be able to take advantage of the upward price tendency of increased demand.

The Corporation states that "The total quantity of steel bought from the industry would not be substantially different at any particular time if the price were higher or lower". It also refers to "the negligible influence of price on demand for steel" and states that "steel prices have little effect on national production or employment". (Exhibit 1410). Again it is stated that the elasticity of demand for steel products unlike that in the theoretical perfect market "is extremely low, the demand for steel is very inelastic". (Exhibit 1418). The Corporation qualifies its statement as to the negligible influence of price on demand for steel by stating that this does not imply that the industry "may charge any price its whim or fancy may dictate". (Exhibit 1410).

The position above expressed is not consistent with the attitude of the Corporation in other connections. The telegram sent by the head of the Corporation regarding the price reductions of June, 1938, and which is in the record of the hearings before the Temporary National Economic Committee, said that the reductions were being made "to meet competitive conditions and with the hope that such reductions will stimulate a demand for steel products". (Verbatim Record, TNEC Hearing Nov. 6, 1939, p. 199). Vice-President Gregg testified that the Corporation did not want to increase its prices in 1937 to such an extent that it "would prove a shock to the gradually increasing volume of business" and thus reduce buying. (Ibid, Page 192). It appears also from Mr. Fairless' testimony and from records supplied by him that immediately following the reduction in base prices of June, 1938, ingot production increased every month for the remainder of the year except December and that the increase was from 587,000 tons in June to 1,224,000 tons in November. Mr. Fairless admitted that the price reductions of June were possibly a factor in this increased demand but "not to any great extent", "a very small extent", and finally that he "could not tell to what extent". (Ibid, Pages 200, 201). Mr. Fairless expressed the view that a reduction in an unreasonable price would stimulate demand but that a reduction in a reasonable price would not. (Ibid, Pages 199, 201). If Mr. Fairless is right, the conclusion seems plain either that the price up until June, 1938, was unreasonable or that there was no relation whatever between the price reductions and the doubling of demand during the following five months.

In Exhibit 1381 before the Temporary National Economic Committee it appears that the 1937 composite price is higher than in 1929, that in 1937 there was a sharp price increase, and that in 1938 prices were reduced to about the 1929 level. The Exhibit shows that coincident with that 1938 reduction, output showed a rapid increase, and that when prices increased in 1937 there soon followed a very marked reduction in output. (Ibid, Page 186).

In one of its pamphlets, the Corporation argues that assuming a 10% decrease in prices during 1938 and a subsequent 10% increase in sales, the deficit of the

Corporation would have been enormously increased. (Exhibit 1410). It is not apparent why it should be necessary to assume a 10% increase in sales. The industry showed about a 65% increase in output during 1939 over 1938. If the Corporation obtained anything like its natural proportion of the total increase in output, its sales must have increased far more than 10% above 1938. After making the statements above referred to, the pamphlet refers next to "this overall price-volume-cost relationship in the industry". It is difficult to reconcile the above argument with the contention that price and demand are independent of each other.

By contrast with its contention that there is no relation between demand and price of steel in general, the Corporation nevertheless states that "the underlying conditions make for a high elasticity in the demand for the product of an individual producer". (Exhibit 1418). It is also stated that manufacturers who buy steel for use as raw material consider that differences in prices paid by them are "an important consideration". (Exhibit 1418). It would seem impossible for an inelastic total demand to be built up out of a series of particular demands that are elastic.

Referring to the fact that steel prices are relatively stable and inflexible compared with the prices of agricultural products and other consumers' goods, the Corporation states that "this is a characteristic of durable goods industries, which results naturally from relatively inflexible costs, proportionately high overhead costs, inelasticity of demand, and other factors * * *". (Exhibit 1418). Unless the competitive conditions in other durable goods industries are taken into account there is no validity in this argument. The characteristics named may be the result of systems of restricting price competition and not because they are durable goods industries. Proceeding to justify inflexibility and stability of price as ends in themselves, the Corporation expresses the views that most buyers of steel would not like "constantly fluctuating market prices, such as are characteristic of the prices of grain and other agricultural products". (Ibid). The argument is that the uncertainties, instabilities and risks that are inherent in price competition should be removed. One may question how much price competition would remain if all its uncertainties and risks could be removed.

The Corporation states that the business cycle was ignored in the thinking of the classical economists and that "The business cycle, however, produces enormous fluctuations in demand, particularly for producers of durable goods, such as steel. These fluctuations are independent of price." (Exhibit 1418). This assumes that price being independent of demand could not be the cause of fluctuations in demand. It assumes that the business cycle is inescapable and ignores the possibility that the collapse of demand which accompanies it may be the reflection of monopolistic price factors. There is as much or more reason to say that enormous fluctuations in demand produce the business cycle, not vice versa. The Corporation proceeds to state that the business cycle "has a profound effect upon the supposedly beneficial consequences of the classical theory of 'perfect competition'." It says further that it has been assumed that perfect competition along classical lines would produce "wholly beneficial effects for society if it could ever be established". It then says:

"No one, however, has ever contemplated that these effects would follow from 'perfect competition' in an economy affected by a pronounced business cycle. In the absence of such a demonstration, it is impossible to make any correct assumption that deviations from the theory of 'perfect competition' are damaging to social welfare. On the contrary, it is quite possible that these deviations, by interrupting or checking some of the more abrupt changes in the course of the business cycle, perform a valuable social and economic function". (Exhibit 1418). Applied to the basing point system, the above quoted language is an undisguised argument for monopolistic control and would seem to justify still further deviation from the concept of perfect competition.

As to whether monopolistic restraints upon competition are unconnected with the business cycle, consideration should be given to the joint statement of one hundred twenty-seven economists in 1932. They stated:

"The most competent economic opinion, as well in Europe as in this country, can be cited in support of the view that a strong contributing cause of the unparalleled severity of the present depression was the greatly increased extent of monopolistic control of commodity prices which stimulated financial speculation in the security markets. There is growing doubt whether the capitalistic system, whose basic assumption is free markets and a free price system, can continue to work with an ever widening range of prices fixed and manipulated by monopolies." (F. T. C.'s Report to the President, November 1934, Page 39).

In discussing fluctuations of demand in the business cycle, the Corporation states that classical economic theory assumes a steady and predictable rate of demand and ignores cyclical fluctuations. (Exhibit 1418). This charge that classical economic theory ignores variations in demand as a factor in price is not well founded, but the counter charge might be made that the Corporation's discussion ignores price as an element in demand. It assumes that an unstable demand requires a stable price and that the price should stand even when the demand falls. The basic question here is whether maintenance of prices in the face of falling demand causes, accentuates or prolongs the violent or cyclical fluctuations in demand.

(f) *The Corporation's Claim That Prices and Profits are Reasonable.*

The Corporation shifts from a discussion of the basing point system to a discussion of the reasonableness of prices and profits in the industry. It takes the position that prices and profits are reasonable and that this demonstrates the absence of monopolistic control. To this it may be said that it is idle to discuss the reasonableness of results when the more fundamental issue is the legal and economic right to accomplish those results. Moreover, the presence or absence of monopolistic control cannot be demonstrated by the criteria of prices and profits.

The Corporation states that the Federal Trade Commission contends that "the price level is so high as to threaten the survival of the capitalistic system" and that "the steel industry earns unreasonable or monopolistic profits". (Exhibit 1418). The Commission has not contended that the survival of the capitalistic system is threatened by any particular price level per se. It has pointed out that it is threatened by the destruction of price competition and by inevitable social control once it is recognized that price competition has been destroyed and that a permanent monopolistic condition has developed. That position was expressed in part of the quotation from the Commission's report which the Corporation cites: "The steel industry is a focal center of monopolistic infection which if not eradicated may well cause the death of free capitalistic industry in the United States." (Exhibit 1418). The Commission has not contended that the industry as a whole has made unreasonable or monopoly profits during the depression years. That question could not be answered without taking into account the extent to which the industry is permeated with inflated capitalization and inflated capital costs.

In its report to the Senate on the basing point system in the steel industry and again in its report to the President on steel sheet piling, the Federal Trade Commission said:

"The price structure of an industry is a very different thing from its price level and might be seriously deserving of criticism even if the price level on the whole were little, if any, open to criticism * * *. On the whole, probably a proper price structure is of far more importance to the public than is merely a low price level. * * * It has been a general principle of our law and of economics, that if competitive forces were allowed to act within a proper price structure, a reasonable-price level would take care of itself." (F. T. C. Report on Steel Sheet Piling, p. 28.)

Such a position regarding the reasonableness of price is in close accord with that set forth by the Supreme Court in the case of *U. S. v. Trenton Potteries Co., et al.* (272 U. S. 392). The Court held that agreements which created the potential power to fix prices might well be held to be unreasonable or unlawful restraints "without the necessity of minute inquiry whether a particular price is reasonable or unreasonable as fixed and without placing on the government in enforcing the Sherman Law the burden of ascertaining from day to day whether it has become unreasonable through the mere variation of economic conditions". The Court went on to say that the question whether prices were reasonable is too uncertain a test and an answer "can be satisfactorily made only after a complete survey of our entire economic organization and a choice between rival philosophies".

In its report to the President on steel sheet piling in June, 1936, the Federal Trade Commission pointed out a number of reasons which make it impracticable to determine whether prices and profits are reasonable, once the test of competition is discarded. It pointed out the necessity of cost information in appraising the reasonableness of price, the refusal of the industry to produce its costs, the wide variation in mill net returns or actual realized prices which steel producers are habitually accepting, the relation of excess capacity and reduced output to cost, and the wide variation in earnings among members of the industry at a given price level. It stated that the acknowledged price leader of the industry is not the

producer best fitted to produce and sell steel at the lowest price consistent with a reasonable return on capitalization, that the Corporation established a capitalization at the time of its formation which was more than twice the fair market value of its securities, and had paid dividends on such a capitalization during many years. (F. T. C. Report to President on Steel Sheet Piling, June 10, 1936, pp. 32-33.)

The Corporation admits that its capitalization was heavily inflated at the time of formation and says:

"When the Corporation was formed, various growing businesses were acquired at prices in excess of the value of their tangible property, resulting in intangible assets of about \$750,000,000 (as later determined by the U. S. Bureau of Corporations) representing the good will or earning power of these businesses. While originally of real value, it has been deemed prudent to write down from time to time the value of all such intangible items, good will now being valued at \$1.00." (Exhibit 1409, Section A).

The amount named was about 50% in excess of the entire common stock of the Corporation down to 1927, when a stock dividend brought the total common stock up to some \$711,000,000. Dividends were paid on common stock every year except two from 1901 to 1931, inclusive, and also in one year since 1931. The rate of earnings on the "combined investment of stockholders and bond holders" for the entire period from 1902 to 1930, inclusive, was 6.33%. Despite the 40% common stock dividend of 1927, the rate of earnings increased from 4.90 in 1927 to 6.01% in 1928 and 9.85% in 1929. (Exhibit 1409, Section A).

The Bureau of Corporations commented upon the Corporation's original capitalization as follows:

"When such values are capitalized into dividend or interest-bearing securities, they involve important public problems. They are merely another name for price policy, and the whole public is ultimately concerned in steel prices." (F. T. C. Report to President on Steel Sheet Piling, June 1936, p. 34.)

As the Federal Trade Commission said in its report to the President in June, 1936:

"The ability of the Corporation to pay dividends on such a capitalization during many years certainly has some bearing upon the question whether prices have been fair and reasonable. In this connection, it may be observed that over capitalization can hardly continue to exist under genuinely competitive conditions." (Ibid, p. 34.)

The Corporation quotes from an economic study of the industry by "qualified commentators" to the effect that the steel industry showed a relatively low return on capitalization compared to other industries. The Corporation quotes from this report in part as follows:

"Explanation of the persistent and relatively low rate of earnings in the steel industry is not easily formulated. It is, of course, possible that the steel group has placed a higher valuation on its assets than have corporations in other industries, but the validity of such a surmise cannot be demonstrated." (Exhibit 1418).

In any study of the reasonableness of prices and profits, a vital point is whether the study is based on and proceeds from the standpoint of the industry as a whole or from the standpoint of different members of the industry. In a competitive industry even under highly prosperous general conditions there are always marginal units whose profits are not adequate because of higher costs than their more efficient rivals. Likewise, there are always some which show adequate or more than adequate profits. Yet they all operate upon an approximately similar level of prices. Under a competitive regime, it is to be expected that what is a fair and reasonable price for one producer may be wholly inadequate for another. A fair and reasonable price for the marginal concern is bound to be excessive for the more efficient, low-cost producer. To average the profit showing of a competitive industry in order to ascertain the reasonableness of the price level is to discard the fact that the industry is composed of competitive units and to treat it as though it were an entity entitled to a return on its entire property. Then there is the question of rate of operation, one of the most powerful factors affecting cost. Competitive theory requires that the efficient low-cost concern shall be allowed and encouraged to operate at a substantially higher rate of production than its less efficient, higher-cost competitors and at a higher rate than the industry average. If it does not do so, this indicates that competition has been displaced by some kind of cooperative policy.

All these phases of the question of reasonableness of prices and profits are illustrated by the testimony of Ernest T. Weir, President of the American Iron

and Steel Institute and head of the National Steel Corp. Mr. Weir testified that he would want base prices established at a level that would cover the costs of every individual company, that none "of the standard companies are justified in selling the product below cost, on the average" and that every company should sell on a basis which would yield it cost plus a reasonable profit. (Verbatim Record, TNEC Hearings, Nov. 10, 1939, p. 309). He testified further that his company did not base its price or volume upon its own costs but upon a kind of live and let live policy and in consideration for the welfare of the industry as a whole. (Ibid, p. 310). He further testified that his company did not use its lower average cost and better average location "to go out and operate, we will say, full, when the balance of the industry can't meet those costs and operates at 30% or 40%. We try to take that in additional profit". (Ibid, p. 302). Yet during the ten years ending in 1936, including the worst years of the depression, the National Steel Corporation earned about 6¼%, while the industry earned on the average 2.9%. (Ibid, pp. 302, 303). Mr. Weir also testified that in the nine years ending in 1938, the industry as a whole showed a loss of \$80,000,000 on the common stockholders' investment of \$2,000,000,000 and that a 35% rate of operation should be the break-even point in the industry. (Ibid, p. 300). Mr. Fairless, President of the Corporation, testified that the rate of operation in 1938 "should have at least reflected a break-even point" but that losses had occurred because prices were too low. The rate of operation for the entire industry in 1938 was about 39%. (Exhibit 1409, Section D). In a public address, however, delivered by Mr. Weir in October, 1939, he had stated that price could not be the subject of cooperation among competitors and in that connection said: "A price policy is one that must be established by each individual company in accordance with cost and other factors peculiar to that company." (Verbatim Record, TNEC Hearings, Nov. 10, 1939, p. 299).

He also stated in this address that:

"You must charge a price, under any given condition, which covers all of your costs—including the cost of carrying unused capacity—and returns a reasonable profit." (Ibid, p. 298).

A position similar to that of Mr. Weir was taken by Mr. Eugene Grace of the Bethlehem Corporation. In a letter written to Mr. Grace in May, 1938, a small business man engaged in the steel industry urged price reduction as a means of industrial recovery, reciting that the Bethlehem Company working at only 32% of capacity had shown a profit of over \$900,000 for the first quarter of the year. In reply Mr. Grace said the operating rate was somewhat higher than 32% and, concerning the suggestion of reduced prices, said among other things: "the opportunities for stimulating business through price reduction should be looked at from the point of view of the steel industry as a whole rather than the case of a single company." (Ibid, Nov. 9, p. 279).

Another angle from which to consider the reasonableness of prices is that of differentials between various basing point prices on the same products. For many years, down until June, 1938, the base prices at Birmingham and Chicago exceeded those at Pittsburgh by several dollars per ton, notwithstanding the fact as shown in the Pittsburgh Plus case, that the cost of production at Birmingham and Chicago substantially was less than that at Pittsburgh. In stressing the importance of raw material assembly costs as a factor in the location of mills, the Corporation presents a table of estimated assembly costs in the production of pig iron. The range of variation shown is \$1.28 per ton, and no showing is made for Birmingham or Sparrow's Point. (Exhibit 1410). Nevertheless, it is stated that assembly costs at Birmingham are undoubtedly the lowest in the country and that at Sparrow's Point, iron ore costs are less than at Lake Erie and Pittsburgh, although this is partially offset by higher assembly costs for coal and limestone. (Exhibit 1410).

Quoting from the N. R. A. Report, the argument is made that strong nonbasing point mills upon becoming basing points "are likely to be able to afford the luxury of putting their nearby customers on a more favorable basis by quoting basing point prices more nearly comparable with those in force at other basing points". (Exhibit 1418). The ability to afford this "luxury" did not prevent the addition of substantial price differentials when Chicago and Birmingham were made basing points. It did not prevent the establishment of a \$2.00 differential on sheets at Detroit and of \$3.00 at Monroe, Michigan. (Exhibit 1418). The \$2.00 differential at Detroit is effective at the mill location of the National Steel Corporation, whose profit showing, as previously described, is one of the most

favorable in the industry. Moreover, the pig iron assembly costs at Detroit are 77¢ per ton less than at Chicago. (Exhibit 1410).

Shifting from its previous argument that strong mills were able to afford the luxury of lower prices upon becoming basing points, the Corporation says in explanation of price differentials over Pittsburgh that "new mills needed higher prices in order to cover their higher costs and to provide capital funds for expanding their facilities". (Exhibit 1418). As previously shown, the costs at Gary and Birmingham were substantially lower than Pittsburgh, while the base prices were substantially higher.

The issue of reasonable prices and profits having been raised, it cannot be adequately analyzed without considering whether there is a fair and reasonable distribution of the price and profit load among various sections of the country, among various classes of consumers, and among individual consumers. In this same connection, the fact should be considered that base prices at Pacific Coast ports on some products are the equivalent or more than the equivalent of base prices in the East, plus transportation costs to the Pacific Coast, plus unloading and dock charges there, although some of the products so priced are produced at mills on the Pacific Coast.

The Corporation's argument that prices and profits disprove the existence of monopolistic control in the steel industry should be considered in the light of a quotation it makes from the N. R. A. Report. After reviewing the trend of steel prices over a period of years, the N. R. A. Report said:

"All these examinations of evidence are instructive but fall short of proving a conclusive case for or against the existence of monopolistic control." (Exhibit 1418).

The Corporation nevertheless continues the quotation from the N. R. A. Report to the effect that:

"There are not only no monopoly profits at the present time, but no sustained profits of a clearly monopolistic character during the more recent years of prosperity." (Ibid)

Supplementing the above argument, the Corporation cites an economic writer to the effect that "evidence of imperfect functioning of competition" in any industry may be found in any one or a combination of three elements, the existence of excessive profits, excessive productive capacity or excessive selling costs. The argument proceeds on the assumption that those three elements are "criteria of the lack of competition". (Exhibit 1410). The three elements named are not even proposed as proving anything more than an "imperfect functioning of competition" which, as the Corporation states elsewhere, "covers the whole range of conditions between theoretical perfect competition and perfect theoretical monopoly, neither of which actually occurs in the business world". (Exhibit 1418). The basic assumption of the argument is that the only cause of excessive profits, excessive producing capacity and excessive selling costs is monopolistic interference and that certain supposed monopolistic results must be shown before monopoly can exist. Radically different results will be obtained depending on whether the three elements named are considered collectively for an entire industry or for the various members of the industry separately. In comparing the earnings of the steel industry with those of other industries, the Corporation based the comparison upon the ratio of earnings to net assets. (Exhibit 1410). This entire basis of comparison is upon the unchecked claims of various industries as to the value of their net assets which opens the door to any inflation of those assets which may be present either in capitalization or in costs. The table of comparative distribution costs has no validity as a comparison of the distribution costs of steel producers unless it is known what types of concerns are included in the classification of iron and steel and for other products. (Exhibit 1410). The argument is also made that "prices cannot be out of line with total costs over any considerable period" because substantial fixed costs must be met regardless of the amount of steel produced. (Exhibit 1410). This argument ignores any distinction between the varying costs of different producers and urges that the total fixed costs of the industry must be met without regard to whether those costs are the reflection of inflated capital assets or whether that inflation is in turn the reflection of monopolistic practices. Despite the above-described fallacies in the argument, the Corporation reached the conclusion that since excessive profits, excessive capacity and excessive distribution costs do not exist in the steel industry "it is sufficiently competitive to be free of the alleged evils of lack of competition". (Exhibit 1410).

THE CORPORATION DEFENDS CERTAIN UNECONOMIC RESULTS OF THE BASING POINT SYSTEM ON THE PRINCIPLE OF VESTED INTERESTS

Apparently great reliance is placed upon the argument that whatever the legal and economic status of the basing point system may be the steel industry and those dependent on it have so adjusted themselves to the system that to disturb it would cause substantial economic dislocation and disruption. In the last analysis this is the familiar vested interest theory. To accept its validity is to recognize vested rights in the continuance of social wrongs and vital economic maladjustments. It is to paralyze the arm of government in correcting those conditions. It suggests the unwelcome thought that private monopoly may be more powerful than government. It leads directly to the inference that such wrongs cannot or should not be righted within the framework of the capitalistic system of free enterprise.

In pursuance of this line of argument the Corporation states that bankruptcy and permanent retirement from business and "the causes thereof were not contemplated in the theory of perfect competition". (Exh. 1418). In the interest of the capitalistic system that statement can and should be challenged. It is the essence of the vested interest argument. It is wholly untenable on broad principles of economics and public policy. It draws any persuasiveness it may have from the degree to which competition may have already lost its vitality as an economic desideratum. Unless competitive forces do bring bankruptcy and retirement to concerns whose costs and overhead are higher than those whose output and services are sufficient to supply society's needs, an ever ascending spiral of costs and prices is invited, to the point where a cyclical collapse of the whole economy takes place with all its terrific repercussions. The capitalistic system cannot function normally without risk of bankruptcy and retirement for some of those who engage in business in the hope of profit. And unless it so functions as a normal incident, cyclical depressions may destroy its ability to function sufficiently to meet the simplest basic needs of the people.

(a) *The Corporation's Defense of Excess Capacity:*

The Corporation takes several mutually inconsistent positions with regard to this subject: first, that excess capacity does not exist; second, that if it exists, there is no way of measuring the amount of it; third, that there is no feasible way of eliminating it; and fourth, that it has certain economic advantages which justify its preservation.

A great deal of space is devoted to a description of alleged ambiguities and uncertainties in the position of the Federal Trade Commission regarding excess capacity. The Corporation admits, however, that the Commission's position is not so ambiguous and uncertain when it states later that "the criticism of the Federal Trade Commission may, however, be taken to mean that the basing point method maintains prices at higher than competitive levels, thus attracting too many producers and causing the installation of excess capacity". (Ex. 1418). That is a fairly accurate statement of the Commission's position, which is that long-continued suppression of price competition inevitably tends to encourage the building of unnecessary plants. The Corporation itself does not challenge the soundness of this position and it is supported both by theory and experience. Of course, the Corporation does challenge the contention that competition is suppressed by the basing point practice.

Contending that excess capacity does not exist, the Corporation states:

"The capacity of the industry, including reserve capacity, is not more than sufficient to supply the needs of the country during periods of high demand, such as 1929, 1937 and the present time." (Ex. 1418).

Again it states that the total capacity of the industry "includes reserve capacity barely sufficient to supply peak demands." These statements are refuted by the figures of capacity and production submitted by the Corporation in Exhibit 1409. The total ingot capacity for the year 1929 was some 63,000,000 tons, as against a total ingot production of some 56,000,000 tons, an excess of about 12½%. In 1937, the total ingot capacity was some 69,000,000 tons, as against a total ingot production of about 50,000,000 tons, an excess of 38%. Figures for 1939 are not yet available but despite the heavy production in the latter part of the year, it is quite improbable that the total production for the year approached anything like the total capacity.

The capacity and production figures in Exhibit 1409 include each year between 1901 and 1938. In only one of those years did the total production of the industry exceed 90% of the total capacity. That was in 1916 when war demand temporarily taxed the productive facilities. In 24 years out of the thirty-eight shown, the total

production was less than 75% of total capacity. In 10 years it was less than 60%. In 8 years it was less than 50%, and in 6 years it was less than 40%. The average percentage of production to capacity by decades is as follows:

1901-1910.....	68. 26%
1910-1920.....	77. 65%
1920-1930.....	70. 54%
1930-1939.....	44. 55%

An outstanding fact of these figures is that excess capacity in the steel industry is not the result of the depression which began in 1929. It has characterized the industry since the Corporation was formed about the beginning of the century.

A more exact method of determining whether excess capacity exists is to consider the facts regarding particular products. For example, the Corporation states that the recent introduction of continuous hot strip mills and the continuous cold reduction process has caused a major technological revolution. (Ex. 1410.) This revolution has taken place within less than ten years, and the result has been to make the output of hand mills largely unnecessary. These new processes affect primarily the manufacture of sheets, strip, and tin plate, and it is probable that the greatest excess capacity is in those products. The American Iron & Steel Institute figures for 1938 show that less than one third of the 52 companies producing hot rolled sheets and hot rolled strip had a combined capacity more than twice the total production and that the 52 companies had a combined capacity about two and one half times the total amount produced.

Arguing that there is no way to measure excess capacity, the Corporation states: "When idle capacity exists, however, there is no way of telling how much, if any, thereof constitutes excess capacity." (Ex. 1418.)

The opinion of Dr. Thorp of the Department of Commerce is cited to the effect that it is impossible to formulate any test of excess capacity. (Ex. 1418.) In the same connection, it is stated that "the criticism of the Federal Trade Commission infers that steel capacity has been accurately measured against a correct standard and has been found to be excessive." (Ex. 1418.) The Commission has never undertaken to measure the degree or extent of excess capacity. Competition is the only proper method of determining how much reserve capacity is needed. If competition is not allowed to determine it, it is then left to the determination of individuals who have a common interest in preventing excess capacity from breaking down the price structure which brought excess capacity into being.

It is not necessary to know exactly how much excess capacity exists before taking steps to eliminate it, when price competition would automatically eliminate it. If the Corporation is correct in stating that there is no way of telling how much of the idle capacity constitutes excess capacity, it would follow that there is likewise no way of telling how much of the idle capacity constitutes proper reserve capacity. If it is right in quoting Dr. Thorp to the effect that there is no feasible test or standard for measuring excess capacity, then it follows that the Corporation has an uncertain ground for its contention that excess capacity does not exist.

It is also argued that the merits of the criticism of excess capacity cannot be accurately appraised without comparing the actualities of production and plant location with potentialities of production and plant location under a wholly different pricing system which has not existed. (Ex. 1418.) Later on, in connection with its attack upon an f. o. b. mill method of pricing, the Corporation does not hesitate to compare an actuality with a hypothetical situation. As a matter of fact, since two systems could not be in effect at the same time and place, even a comparison between two actualities might be invalidated by differences in time and circumstance.

Arguing that there is no feasible method of eliminating excess capacity, the Corporation refers to outmoded machinery and mills which have not been operated for some time and implies that the Federal Trade Commission would contend that such property "should have been scrapped immediately, their capacities deducted from total capacity figures, and their value written off from the assets of their corporate owners". (Ex. 1418.) It goes on to state, with reference to scrapping of mills with decreasing demand in a downward phase of the business cycle—

"It is not entirely clear whether the implication is that this should occur as a voluntary policy of scrapping mills in order of age, or degree of obsolescence, or that it should occur as a natural, economic result." (Ex. 1418.)

It should be entirely clear that the scrapping of mills and machinery representing excess capacity should occur as a natural, economic result of competitive conditions. It is not to be implied that the owners of such properties should

scrap and write them off voluntarily. There is a clear distinction between voluntary scrapping and writing off of such properties and involuntary action forced by pressure of competition.

Arguing further the impracticability of eliminating excess capacity, the Corporation states that mills would not necessarily be eliminated in order of their degree of obsolescence but that comparative financial strength would influence the outcome and "play a decisive part in determining which mills were eliminated". (Ex. 1418). Since disparity in financial strength has always been a factor in determining the outcome of price competition, this is really an argument that the theory of price competition is not sound. However defective the theory may be in the respect pointed out, the question persists as to whether there is any equally satisfactory substitute. The Corporation argues that an integrated producer making a wide range of products might find that a low price on some of his products could be recouped by high prices on others, and he would thereby be enabled to drive out of business a nearby producer making only a limited range of products. This line of argument is suggestive of a threat to use the power of integration and superior financial strength to drive out competition.

In its argument that excess capacity has certain advantages from a public standpoint which would be destroyed if excess capacity were eliminated, the Corporation states that any substantial reduction in capacity would probably leave less than is required for peak demand with the result of rapidly rising prices in the upper course of the business cycle. (Ex. 1418). Again, it is urged that if excess capacity be eliminated there would be a tendency "in the direction of the skyrocketing of prices in periods of rising demand". (Ex. 1418). This ignores the fact that there have been very rapid increases in price at times in the face of existing excess capacity. For example, the base price of heavy structural shapes at Pittsburgh increased from 1.50¢ per pound in February, 1932 to 1.60¢ in April, 1932, where it remained until September, 1933, when it increased to 1.70¢, jumped to 1.85¢ in May, 1934, dropped to 1.80¢ in August, 1934, where it remained until July, 1936, when it advanced to 1.90, to 2.05 in January, 1937, 2.21 in March, 1937, and 2.25 in April, 1937, where it remained until June, 1938. The base price of cold rolled sheets at Pittsburgh was 2.95¢ per pound in June, 1936, advanced to 3.05 in July, to 3.25 in December, to 3.49 in March, 1937, and to 3.55 in April, 1937. (Ex. 1409, Section C). Other illustrations of the same sort might be given. Even though it were a fact that excess capacity tends to prevent rapid upsweep in price during boom periods, the question would still remain whether it is cheaper to pay higher prices because of a temporary shortage of productive facilities until they are enlarged sufficiently to overtake demand, or to pay for maintaining the excess capacity during all the periods when demand is low. That question, of course, cannot be answered on any mathematical basis as Dr. Thorp clearly indicates.

In connection with a discussion of costs, the Corporation implies that it is good public policy to subsidize producers whose output is not necessary to meet the existing demand. The question thereupon arises as to who shall determine how much excess capacity should be subsidized. If competitive forces are not allowed to determine that question, it is evident that the resulting tendency is to inflate capital costs, overhead and capitalization. If there are excess capacity and inflated capital costs resulting therefrom in any industry, what corrective is there in any free economy other than competition?

The Corporation quotes from Dr. Thorp to the effect that there is a degree of excess capacity "which is probably taken into practical financial account through charges for depreciation and obsolescence, and through various other forms of liquidation of capital". (Ex. 1418). Such charges and such liquidation of excess capacity, of course, are an effort to evade the physical scrapping of excess facilities and to include them in costs just as though they were actively employed.

In an editorial entitled "Excess Capacity is Burden to Steel", the trade magazine *Steel* produced figures to show that the average ratio of ingot production to capacity for the period 1926-1937, inclusive, was 59.55%, and that this 60% of capacity earned in the same period 3.49% on the capital invested in the entire capacity, after absorbing depreciation and overhead on the idle 40%. It stated that these facts suggest that steel, "instead of being a \$4,281,264,890 industry, actually would be capitalized at considerably less if much excess capacity whose future usefulness is problematical, were scrapped." It also stated that the facts suggested that the industry, "always plagued with obsolescence, is slower than it might be in charging off depreciation." (*Steel*, July 18, 1938, p. 39.)

(b) *The Corporation's Defense of Existing Mill Locations.*

The Corporation states that "The location of production facilities has been due to the fundamental economic traits of the steel industry which have already been set forth, rather than to any pricing system." (Exh. 1418). Again it states that the present location of mills "cannot be attributed to any pricing method." If this is true then the ending of the basing point method of pricing would not cause dislocation and disruption of mill locations.

The above quoted claims are contradicted however by the Corporation's own statements in another place. For example, it says that in many respects the Pittsburgh Plus method of pricing had a natural tendency to encourage the location of mills elsewhere than at Pittsburgh in order to increase their mill net returns by adding the freight from Pittsburgh to their mill locations. It also says that similar motives underlay the establishment of price differentials over Pittsburgh at other basing points and that "Mills at Pittsburgh enjoyed a Nationwide market with normally even mill net returns." (Exh. 1418).

The fact that the basing point system has had some bearing upon mill locations is confirmed by testimony before the Senate Committee on interstate commerce in March, 1936. The President of the Laclede Steel Company of St. Louis testified that its plant had been located in St. Louis because of the prospect of making money "by selling for more than it cost, on account of the protection we got, on account of the Pittsburgh Plus in existence at that particular time." The President of the Thompson Wire Company of Boston, Massachusetts testified that his company was "typical of many others who have been enabled by the basing point method to enter the steel business in the past decade and maintain their position with fair success." (Printed record of hearings on S. 4055, pp. 123, 146.)

Such testimony from non-basing point mills is to be considered with the Corporation's statement elsewhere that "the possibility of a non-basing point mill realizing mill net returns higher than those obtained by competitive mills at basing points, is not due to the absence of a basing point, but to a geographical advantage." (Ex. 1418.) The truth is that every mill probably has some geographical advantage, no matter what the pricing system is, but from a price standpoint is protected in it to the full under the basing point system.

The Corporation, however, does not merely take a partially inconsistent position. It completely reverses its position that the present location of mills "cannot be attributed to any pricing method." It does this by arguing that practically all the mills were located where they are because of the basing point system of pricing and that the natural advantages of their location are not sufficient to justify their continuing at those locations without the aid of the basing point system. Thus it says, referring to the producer's problem of finding a price F. O. B. mill that will cover his total costs and also provide a large enough sales area to keep his mill operating at an economical rate:

"If any mill's costs and geographical relation to its customers should be such as to permit a satisfactory solution of this problem, it would be an exceptional case." (Exh. 1418.)

The Corporation states:

"The Federal Trade Commission's theory seems to be that steel mills should be located near the markets for steel products—in effect that they should be scattered over the country wherever there is a market regardless of other consideration." (Exh. 1418.)

This is not a correct statement. It corresponds more nearly to what was done by some non-basing point mills which established themselves away from Pittsburgh and in the vicinity of large consuming markets in order to take advantage of the "phantom freight" from Pittsburgh to their nearby customers. There is no way of determining which mills are properly located without the competitive test of consumer preference on a price, quality, and service basis as between the mills at various locations. Mills should not have been located on the assumption that phantom freight could be collected indefinitely or that the basing point system would continue and that price competition need not be expected.

Referring to any further scattering of mills into various consuming territories, the Corporation argues that "If they were located outside the Northeastern United States they would be farther from raw materials than the corresponding capacity is today, and their assembly costs would be higher." (Exh. 1418.) This statement overlooks the fact that there has been a great development of the steel industry in the Middlewest and that production costs there have been lower than in the Pittsburgh District. The statement gives no consideration to the feasibility of using iron ore near its place of production in the Middlewest, especially with fuel being available in the form of oil and natural gas. Unless all mills are equally

well located which of course is inconceivable, it follows that some of them are disadvantageously located from a competitive standpoint. The entire argument of the Corporation is devoted to a defense of the status quo of mill locations in the entire industry.

(c) *The Corporation's Use of Overhead and Capital Costs to Justify the Basing Point System.*

By contrast with the dearth of detail regarding unit costs of production; the corporation gives much space and emphasis to the importance of overhead and capital costs in the steel industry. The argument is obviously addressed to a rationalization of overhead and capital costs. There is no showing, however, of the proportion that these two kinds of costs have to each other or to total costs. Data from which the reasonableness of costs may be tested are not presented for examination.

It is asserted that "large scale integrated operations produce steel at a lower cost per ton than small ones." (Ex. 1418.) No unit costs are presented in support of this assertion. Moreover, no light is thrown on the crucial question whether the overhead and capital costs of some large scale integrated companies may not so far exceed those of smaller concerns as to make the former's total costs per ton exceed the total costs of the latter.

The argument then proceeds with the above unsupported assertion as a premise. It is urged that since large integrated operations produce low costs such operations must have a wide area of distribution in order to maintain those low costs, and that consideration must be had for the price policy of other competitors and its effect on the steel markets of the entire country. (Ex. 1418.) The suggestion implied in this argument is that the identical delivered prices of the basing point system are somehow necessary to maintain the low costs of production of large scale integrated companies. The simple truth is ignored that low costs make possible low mill prices and that low mill prices would provide a wide area of distribution. The question may be raised as to what benefit the consumer gets from low cost and wide distribution accompanied by the loss of price competition and attained at such a sacrifice. Again the point may be stressed that there is no assurance that low unit cost of production may not be offset, or more than offset, by high overhead and capital costs.

Without providing any means for measuring such costs on a unit basis, the Corporation stresses their importance. Thus, it says that "a large proportion of the costs in the steel industry are overhead costs, which must be met, no matter how much or how little steel is produced," (Ex. 1418) and that "the cost structure in the industry is marked by substantial fixed costs which must be met regardless of the amount of steel produced." (Ex. 1410) It is also stated that the two most important factors in cost are, in order of importance, raw material assembly costs and capital investment required per ton of steel. (Ex. 1418) Since the first of these factors involves the second, the second will also be a partial reflection of the first.

It is also stated that "the capital investment per ton of steel is high and the annual turnover is relatively low, compared with many other industries." (Ex. 1418) In its argument that ending of the basing point system would involve dislocation and relocation of industry, the corporation says that "scattered mills mean a much higher per ton investment cost than under existing conditions, and would present a serious economic danger to the industry in periods of low demand." (Ex. 1418) The nature of this danger is not stated, but it may be surmised that the temptation to reduce prices in such periods is not excluded. Whether the corporation itself has "scattered mills" within the meaning of the above quoted statement is not known, but it does have mills that are widely scattered, and were widely scattered when they were taken over, to the accompaniment of high infusions of "water" into the Corporation's capital structure.

In this connection, a study of the industry's capitalization per ton of ingot capacity is illuminating. A portion of these facts as to four producers only was presented in the Federal Trade Commission's report to the President on Steel Sheet Piling in 1936. (P. 32) The magazine "STEEL" tabulated the 1935 earnings, capitalization, assets, and liabilities of twenty-three producers who represented an aggregate annual ingot capacity of over 63,000,000 tons, or 90% of the total capacity. The magazine also translated some of that information into terms of per ton ingot capacity. The range of capitalization per ton of capacity was from \$12.60 to \$185.71. Only three concerns were capitalized at more than \$100 per ton of capacity, and they are engaged largely in the production of special alloy steels. Excluding them, the highest per ton capitalization was \$72.41. The corporation's capitalization per ton was \$62.41, and was the third

highest of twenty producers. Twelve of the twenty producers, however, showed a capitalization of less than \$50 per ton of capacity, six less than \$40 per ton, and three less than \$30 per ton.

The significance of these facts is that concerns with relatively low capitalization per ton of capacity are thereby equipped to produce steel and pay satisfactory returns on their investment at a price level that would not permit concerns with higher capitalization to pay any returns thereon. To argue generalities about high capital costs per ton of capacity is to ignore these wide differences among supposedly independent competitive enterprises. It assumes that such differences should not express themselves in the form of price competition lest the relatively high capital costs of some concerns be reduced. It is an extension of the vested interest principle to include the capitalization of anticipated earning power based on monopolistic suppression of price competition. If any inflation of capital costs does exist, the argument is perfectly calculated to protect and continue it.

The Corporation states that "the average investment required for a modern steel works of efficient size is approximately \$100,000,000," exclusive of investment in operations prior to the assembly of raw materials at the plant site. (Ex. 1410.) The implication is that smaller plants and smaller companies are not efficient. This is to be considered in connection with the fact that in 1935 only ten out of twenty-three companies, representing 90% of the total ingot capacity of the industry, each had assets running as high as \$100,000,000 and four of these ten each had less than \$125,000,000, total assets. ("STEEL," May 11, 1936)

The close connection between overhead and capital costs and excess capacity should not be overlooked. As the magazine "STEEL" said in an editorial on excess capacity, steel, "instead of being a \$4,281,264,890 industry, actually would be capitalized at considerably less if much excess capacity, whose future usefulness is problematical, were scrapped." ("STEEL," July 18, 1938, p. 39)

(d) *The Corporation's Claim That Substitution of f. o. b. Mill Pricing for the Basing Point System Would Dislocate Industry and Create Monopolistic Conditions*

In no respect does the Corporation's defense of the basing point system more clearly invade the realm of economic sophistry than in its argument that abrogation of the system in order to restore price competition will mean in fact the establishment of monopoly. Building upon the premise that the innovation of price competition would produce important changes in the physical and geographical characteristics of the industry, the Corporation magnifies such changes to the point of suggesting that price competition would be the equivalent of economic disaster. Apropos of this it might be said that unless price competition would produce some important changes it would not be worth insisting upon. The changes that might result would simply be the automatic measure of the need for them, provided our social and economic philosophy is not to be basically and permanently altered.

The Corporation's argument combines the contention that the basing point system is competitive with the claim that its abrogation would therefore destroy competition and create monopoly. But the most insinuating part of the argument is that in the process of changing from one type of economy to the other the result would be financial losses, dislocation of industry, increased unemployment, and consequent detriment to the public. This is the vested interest argument at its ultimate. It could have been applied with equal force to the institution of slavery or to any other institution that has conflicted with basic public policy as does private monopoly.

The Corporation's contention as to dislocation and disruption of industry is that the only substitute suggested for the basing point system is one of f. o. b. mill prices uniform to all customers. As shown hereafter this is a misconception and the conclusions based upon that contention as a premise are therefore beside the point. Aside from that, however, the Corporation attempts to measure the extent of dislocation resulting from a hypothetical f. o. b. mill price on sheets, one of the most important rolled steel products. As to that product, it endeavors to demonstrate that a series of local or sectional monopolies would result. An analysis of this attempt will now be made.

A striking fact is that in making this attempt the Corporation employs a technique which it elsewhere says is not accurate. Thus it says:

"It is impossible to measure quantitatively the amount of transportation costs which might be considered unnecessary from any point of view, and it is equally impossible to measure the economic costs which would result from any inter-

ference with present practices, or, more specifically, from any direct or indirect limitation of selling territories." (Ex. 1418.)

Again it says:

"The effect of the basing point method upon the flexibility of steel prices could only be measured accurately by comparison of present prices with prices which would have existed in the absence of the basing point method. Such alternative prices cannot be known, as it cannot be determined what practice would have developed if the basing point method had not been used, and thus it cannot be estimated what effect this other practice would have had upon prices."

To a similar effect is a statement made with reference to the criticism that the present location of mills is the result of the basing point system, as follows:

"An accurate appraisal of this criticism would require comparison of the existing facilities at Pittsburgh and other large basing points with those which would exist there if the Pittsburgh plus and basing point pricing methods had not been in use. Such comparison would require an examination of the extent to which any pricing practice could affect the location of production facilities, what practice would have been followed in the absence of Pittsburgh plus and the basing point method, and what effect such different practice would have had upon the location of production facilities. There is no way by which the present steel producing facilities can be compared scientifically with those which would have existed under other conditions."

The above-admitted infirmities in the technique employed by the Corporation are enough to vitiate the conclusions that are worked out from certain assumptions with much more elaborate detail and show of scientific exactitude. But there are other fallacies that may be pointed out. Discussing the probable effect of a mill price method, the Corporation says:

"An isolated producer would be protected from other producers by a wall of freight rates, and would be able to charge high prices to consumers in his own area." (Ex. 1418.)

Whatever protection is given an isolated producer by a wall of freight rates is given in fullest possible measure under the basing point system. He would violate a cardinal principle of the system if he did not avail himself of that protection. It is also argued that under f. o. b. mill pricing the prices at each mill would be identical since "otherwise the mill with the lowest price would obtain all the business." (Ex. 1418.) This overlooks the fact that identical mill prices could not produce identical delivered costs in view of the difference in transportation charges. The Corporation also says:

"Under the proposed uniform f. o. b. mill base system, unless the isolated producer's prices were exceedingly high outlying producers could not afford to name a price enough below his to take any substantial part in his market." (Ex. 1418.)

That is exactly the situation under the basing point system. No matter how high the isolated producer's mill net price, no matter how much "phantom freight" is included in it, no matter whether outlying producers can afford to undersell him, the system will not permit them to do so. Nor is the producer with the freight rate advantage permitted to use it to reduce his mill net price by sharing that advantage with the purchaser. The Corporation goes on to say that under the basing point system outlying producers are willing to compete in the vicinity of the isolated producer by accepting lower mill net returns. This omits the fact that they accept these lower returns in the exact amounts needed to make their delivered prices the same as those of the isolated producer. It also omits the fact that each producer is isolated as to some of his business, and so reciprocal relationship develops if the system is to be maintained.

In flat contradiction of the foregoing claims the Corporation has elsewhere admitted that the ending of the basing point system would tend to reduce prices, and then proceeded to exaggerate it to the point of absurdity. Testifying before the Senate Committee on Interstate Commerce in April 1936, W. A. Irvin, president of the Corporation, said that the effect of f. o. b. mill pricing would be "to produce a downward spiral of prices." (Printed Hearings on S. 4055, p. 596.) In the pamphlet under consideration, the Corporation says that under a mill pricing method producers that are close together "would be in intense competition with each other" and the buyers for the most part "would buy from the nearest mill because its price plus the transportation charges to destination would be the lowest." (Ex. 1418.) Again it is said that:

"In order to sell sheets in any important market a mill would have to reduce its price by the amount of the freight to such market. In many cases this would arbitrarily result in wiping out the selling area of other mills, compelling retalia-

tion by them which in turn would deprive the first mill of access to the market sought by such mill in making the price reduction. The price would be lower, with little or no real gain in marketing area." (Ex. 1418.)

In still another place the Corporation argues the reverse of the above. It says that a mill price method "would increase the tendency to follow price raises by other mills by reducing the number of producers and by keeping the mills out of contact with each other's customers." It also says that "The mills would be more apt to follow a rise in the price at one mill, than to try to initiate sales efforts in the new area in which their old prices were the lowest because the mill which had raised its price would almost certainly be obliged to reduce its price if the others did so." (Ex. 1418.)

Despite the admission that f. o. b. mill pricing would reduce prices, the Corporation uses twelve printed pages and presents maps all based on the assumption that mill prices at non-basing point mills would be made equal to present basing point prices at the nearest basing points. In making that assumption the Corporation cannot maintain its statement that "the previously existing scale of delivered prices in the territory around the non-basing point mill can and undoubtedly will remain about the same even though the mill becomes a basing point." (Ex. 1418.)

When the Corporation finally concludes that the effect of f. o. b. mill pricing would be to give local mills a virtual monopoly against their more distant competitors, it necessarily reverts to the position that a mill price method would reduce prices. It assumes, concedes, and emphasizes that fact. (Ex. 1418.) Unless prices were reduced the mills could continue to sell in as wide a territory as at present. In reverting to this position, the Corporation holds up the bogey of a monopoly that would keep out competitors by the simple process of underselling them. This is no more than any competitor does when he makes a lower price. To apply the word "monopoly" to the particular business which a competitor takes by making a lower price is to distort and reverse the ordinary meaning of the word, if indeed it is not "economic sophistry." The same might be said of applying the word "competition" to a system that permits all producers to share in business anywhere but only at identical delivered prices. Purchasers might well forego access to so many sources of supply if they could thereby obtain lower prices.

There are other weaknesses in the conclusions drawn as to the effect of f. o. b. mill prices in allegedly creating the local monopolies described. Some of them may be mentioned. The geographical effects are based on all rail carload freight rates with slight exceptions, while, of course, the use of water and truck rates would substantially enlarge the sales area of the mills using them. (Ex. 1418.) It is also assumed that the ratio of mill operation to capacity would be no larger than in 1938 when it was 43%. (Ex. 1418.) Incidentally, sheets, the product selected for the showing, probably has a greater degree of excess capacity than any other and might, therefore, not be typical of results as to other products. The conclusions drawn assume that the present base price level will continue, that each mill would have the same mill price, that the sales area of each mill would remain constant, and that differences in the costs of various mills would have no effect upon the sales areas or prices. In short, the necessities of the argument require that these unstable factors be arbitrarily stabilized in order to make them conform to an assertedly resultant condition of monopolistic stabilization.

Finally, it may be observed that if f. o. b. mill pricing actually tended to create monopolies, it had abundant opportunity to demonstrate it in the case of pig iron. Pig iron had always been priced f. o. b. furnace until the NRA Code in 1933 substituted the basing point system on that underlying product of the steel industry. This was fifteen years after Judge Gary's effort to that end had failed. As shown in the Federal Trade Commission's report to the Senate in 1934, when the so-called "monopoly" of the f. o. b. furnace price of pig iron was replaced by the so-called "competition" of the basing point system, prices were simultaneously advanced. ("Practices of the Steel Industry Under the Code," p. 58. See also F. T. C. report to the President of November 1934, p. 7, and Appendix C.) Likewise, when the price of steel billets was changed under the Code from an f. o. b. mill basis to the basing point system it automatically increased the delivered cost to a certain purchaser by over \$3.00 a ton, this increase representing "phantom freight" to a nearby source of supply. (F. T. C. Report to the Senate, p. 59.) Only in the topsy-turvy realm of economic sophistry can such behavior of competition and monopoly be explained.

The Corporation of course does not carry the vested interest argument to the point of opposing changes that the industry might find it advantageous to

make, regardless of their effect upon other vested interestss. The trade magazine Steel, commenting upon the results of the changes in base prices and abolition of base price differentials of June 1938, said:

"Some consumers may move their plants with a view to improving their position in respect to buying material and selling their products. Others may change their products; a few already have indicated their intention of doing so." (Steel, July 1938, pp. 23, 24.)

The magazine Steel summarized the replies to a questionnaire it had sent out to representative steel users, concerning the effect on their business of the changes in base prices and base price differentials made in July 1938. It appears that about 13% of the replies were to the effect that their competitive position had been unfavorably affected, while about 20% reported that their competitive position had been affected favorably. (Steel, July 24, 1939, p. 15.) Such facts illustrate the point that in considering vested interests much depends on "whose ox is gored."

An article entitled "War and the Steel Ghost Towns" in the January 1940 Harpers' Magazine describes graphically the technological displacement of hand mills by the continuous strip process, the consequent disemployment of thousands of skilled workers, and the shattering effect upon the whole economy of scores of substantial communities. The only pertinent comment in this connection is that the public policy of preserving competition is no less fundamental than that of preserving the right of technological advancement. Nor is the vested interest defense any more valid in the one situation than in the other.

Under the NRA Code, many long established and important business interests protested various steel code provisions as damaging, discriminatory and destructive to their respective businesses. Yet such code provisions were not modified and the ones objected to are still in practical effect. The vested interests that have been protected by and embodied in the basing point system are at least partially offset by vested interests that were injured and perhaps destroyed by it. So, unless government should take the broader view that the vested interest of the whole public in fundamental public policy is paramount to all other considerations, it must choose which particular group of vested interests shall be protected and which other groups may become its prey.

THE CORPORATION HAS MISSTATED THE ATTITUDE OF THE FEDERAL TRADE COMMISSION REGARDING ALTERNATIVES TO THE BASING POINT SYSTEM

In order to support its thesis that objections to the basing-point system are founded upon abstract criteria and not upon tangible evidence, the Corporation devotes 18 pages of its 101 page pamphlet to an analysis of what it says is the alternative to the basing point system that is proposed by the Federal Trade Commission. It is said that such alternative has been proposed in order to "produce all of the assumptions of 'perfect competition'" (Ex. 1418).

Besides being itself theoretically abstruse and highly speculative, such analysis is wholly beside the point. The Commission has not proposed the alternative to which the Corporation's analysis is directed. What it has proposed is quite different from what the Corporation claims. The crux of this issue is whether the quoting of f. o. b. mill prices, which is the natural and logical negation of a delivered price system, must take the form of a uniform mill price to all customers. The most extreme misstatement of the Commission's position on this question appears in the following terms:

"The Federal Trade Commission has publicly taken the position that the uniform f. o. b. mill price system was prescribed by its 1924 'cease and desist' order directed against said subsidiaries of the United States Steel Corporation, in the Pittsburgh Plus case." (Ex. 1418.)

To support this statement the Corporation cites the Commission's pamphlet entitled "Monopoly and Competition in Steel," (p. 80), submitted to the Temporary National Economic Committee in March 1939. The citation given does not support the above quoted statement of the Corporation. On the page cited, the Commission stated its position to the effect that the basing point system should be eliminated as a device that prevents price competition and that it was necessary to guard against any substitute for it which would produce the same results in the form of identical delivered prices. The Commission then quoted the text of its order in the Pittsburgh Plus case and stated that the principles of that order should be applied to the steel industry. The terms of that order made no reference to f. o. b. mill prices of steel uniform to all customers. Immediately following the text of the order, the Commission said:

"The open f. o. b. mill price system is essential, in the Commission's opinion, for the maintenance of fair competition in steel. To fulfill this purpose, however, there must be no obligation to maintain any announced price for any time whatsoever." (Exhibit 358, Part 5 of Printed Hearings before TNEC, P. 2200).

From this last statement of the Commission's position, it is clear that the Commission has not proposed to require the use of a mill price uniform to all customers.

Certain of its findings in the Pittsburgh Plus case were to the effect that the pressure of buyers would compel equal price treatment by a particular seller quoting f. o. b. mill, when discrimination between buyers would not be concealed, as it is under the basing point system. But it is a distortion of facts to say, as the Corporation does, that "the Federal Trade Commission proposes to impose by law or mandate" a uniformity in mill prices to all customers (Ex. 1418). From its enactment, in 1914 until its amendment in 1936, the Clayton Act specifically safeguarded the right of a seller to discriminate in price for various reasons, among them being discrimination in good faith to meet competition. The amended Act now safeguards the right of a seller to discriminate in price in good faith to meet an equally low price of a competitor, but he has the burden of proof on that question. This right is guaranteed by statute and could not be curtailed by any mandate or order of the Commission. The Commission has never proposed that this right be disturbed by amendment of the statute. The right of self defense against competitive price attacks is as vital in a competitive economy as the right of self defense against personal attack.

In view of the above clear and consistent record of the Commission on this question, numerous statements or references by the Corporation may be challenged, such as the Commission's "insistence that uniform f. o. b. mill prices should be required" (Ex. 1418); that the Commission had "clung to its old opinion" that "steel should be sold at uniform f. o. b. mill prices without freight absorption"; that the "proposed uniform f. o. b. mill price system differs fundamentally from its earlier model in the requirement that mill prices be uniform to all buyers"; that it is questionable whether "the proposed uniform mill price system would bring about the assumed conditions of 'perfect competition' as contended by the Federal Trade Commission"; that refer to "the rigid and arbitrary nature of the system recommended by the Federal Trade Commission"; and that it would be impossible to foresee "What steps the mills would be forced to take to escape the procrustean rigidity of this system."

The Corporation further states that "The only alternative seriously suggested by the critics of the basing point method is the uniform f. o. b. mill price system." This is not true. The alternative has been proposed of restoring price competition through f. o. b. mill pricing and the ending of the basing point system as a means of ending a system of identical delivered prices. If the ending of the system and the substitution of f. o. b. mill prices did not operate to prevent a mill from charging different prices to its different customers, this would be taken care of under the law as it now stands if it amounted to unlawful price discrimination.

In furtherance of its argument on this question, the Corporation states "a requirement that all sales by any producer be made at uniform prices, regardless of the buyer's location, is artificial" (Ex. 1418). To this it may be said that even if such a requirement were to be imposed by some form of social mandate, it would be much less artificial than the present requirement of the basing point system which is that the mill net returns or prices shall vary systematically according to the location of the buyer in order that he may be quoted identical delivered prices, regardless of the location of the sellers.

THE STEEL INDUSTRY SHOULD BE PREVENTED FROM CONTINUING TO RESTRAIN PRICE COMPETITION THROUGH USE OF THE BASING POINT SYSTEM OR THROUGH ANY EQUIVALENT METHOD

As stated at the outset, the Corporation admits that "price competition is necessary in any industry operating in a capitalistic system." (Exhibit 1410.) In making this statement the Corporation agrees that the stability and perpetuity of the capitalistic system depends upon the preservation of price competition. The only real issue, therefore, is whether the structure and the philosophy of the basing point system are hostile to the existence of price competition. Considering its inception, its purpose, the methods employed to implement it, and most of all, its results, it is believed that the "tangible evidence" presented herein supports the conclusion that the basing point system in the

Steel Industry is the negation and frustration of price competition. It is also believed that even judged by the standards of "abstract criteria", the system conforms to the economic concepts of monopoly and violates the economic concepts of a competitive economy. If the Congress or other socially created agencies should accept these conclusions as embodiments of ultimate fact, then the Corporation itself, if it is to follow the logic of its own position must abandon the basing point system or imperil the capitalistic system. If the theory of vested interests is to dominate the decision, the status quo will have been maintained at the sacrifice of a cardinal principle of the capitalistic system.

As stated by the Federal Trade Commission in its report to the President on steel sheet piling in June, 1936 (p. 41) "the issue thus presented is whether this Industry shall be required to obey the law or whether it shall be allowed to violate the law in the guise of maintaining the so-called 'standards of fair competition which are described in the Steel Code' ". The Commission also said in that report that either an affirmative or negative policy on the subject would have equally far reaching and fundamental consequences. More specifically, the fundamental issue of public policy is whether the systematic suppression of price competition which was perfected under the N. R. A. Steel Code and the emergency legislation which preceded it shall be allowed to continue indefinitely after that emergency legislation has been nullified.

The Commission recommended to the President that the results of its investigation on steel sheet piling be referred to the Attorney General for appropriate action. This was done. On April 26, 1937, the Attorney General reported to the President that an investigation by his department had failed to produce "sufficient evidence admissible in civil and criminal litigations to make advisable proceedings in court or under the Anti-trust Acts as they have been construed by the courts."

The Commission recommended to the President in the Steel Piling report that he consider "recommending to Congress the enactment of legislation making unlawful such organized systems of delivered prices as frustrate price competition." The Commission's statement on the advantages of such legislation was as follows:

"Bills are now pending in both Houses of Congress that would make the operation of non-competitive basing point systems unlawful per se. There are distinct advantages to be gained through legislation directly outlawing such basing point systems. The enactment of such a general act supplementary to the Anti-trust laws would render unnecessary the separate investigation of a great number of industries together with the effect of the system in each upon the competition therein, looking toward the bringing of separate proceedings with respect to each industry using such a basing point system. Once Congress has enacted an anti-basing point bill, the immense expense of separate investigations and the laborious trial of separate suits would be avoided. If in but one case the Supreme Court upheld the validity of the statute, it is believed that the artificial character of such basing point systems would aid in their collapse. There would be a strong sentiment on the part of many members of the Industry to return to price competition rather than defy an Act of Congress and await action by the Department of Justice or by this Commission. The result would be the elimination of uncertainty as to the law which is expensive to Industry and to the public in many ways." (Report, to President on steel sheet piling June 10, 1936, pages 41, 42.)

The Attorney General in his report to the President above referred to, recommended the establishment of a committee to survey the whole field of methods of monopolistic control and the desirability of amending, extending and clarifying the Anti-trust laws. The Temporary National Economic Committee has grown out of that recommendation. No more vitally needed legislation within the scope of the committee's functions can be suggested than that of directly prohibiting the basing point system by Congressional mandate. The constitutional power of Congress to regulate interstate commerce could find no more appropriate exercise, assuming that our long established public policy of preserving competition and free enterprise is to be something more than an abstraction.

FEDERAL TRADE COMMISSION'S SUMMATION OF THE MONOPOLISTIC CHARACTERISTICS OF THE BASING POINT SYSTEM¹

Mr. BALLINGER. Mr. Chairman, at this point I want to offer for the record a document which has been prepared by Mr. Wooden and Mr. Hugh White of the Federal Trade Commission who have been associated with the Commission's activities for many years with respect to the basing-point system in the steel industry. This document is addressed to a detailed consideration of the documents prepared by the Corporation, including some additional factual matter relating to the basing-point system.²

In my opinion, Mr. Chairman, this document, prepared by Mr. Wooden and his associates, is perhaps the most complete and comprehensive document that has been prepared by the Government on the monopolistic nature of the basing-point system in the steel industry.

Mr. Wooden is going to take the stand very briefly, Senator, just to point out some of the high lights in this pamphlet, but before Mr. Wooden starts in to tell you about that I want, if possible, to summarize very briefly what we think this hearing has shown from the standpoint of the Federal Trade Commission, where this hearing has taken us, because, we made the charge that the basing-point system was monopolistic, and we would like to point out to the committee that we don't think that conclusion has been upset.

I will start in this way. Back in 1924 the trial staff of the Federal Trade Commission contended in the Pittsburgh plus case that the basing-point system was a monopolistic device in that it repressed price competition in the steel industry. The steel industry stoutly denied this, and, of course, the Commission made a decision and issued a cease and desist order against the system. There was no appeal from that order for 15 years. Then the industry went into the multiple basing-point system.

The CHAIRMAN. There was no appeal for 15 years. What happened during that 15 years?

Mr. BALLINGER. The industry went over into what is known as the multiple basing-point system.

The CHAIRMAN. Then the industry abandoned the basing-point system?

Mr. BALLINGER. No, a multiple basing point system is merely a series of Pittsburgh plus systems. Each "base" in a multiple basing point system governs a particular sales territory, and in that sales territory the price of products governed by the multiple basing point system is arrived at by adding to the base price the cost of transportation from the "base" to the point of delivery. Thus the multiple basing-point system merely breaks up the United States into a series of sales territories, and within each sales territory the price of products

¹ Hearings before T. N. E. C., Pt. 27, p. 14,312.

² Exhibit No. 2242, see p. 91.

governed by the basing point system is determined exactly as it was under Pittsburgh plus, which had only one "base" for the Nation as a whole.

Mr. BALLINGER. When the industry went over, Mr. Chairman, to the multiple basing point system, it wasn't long before the Federal Trade Commission said that this system, too, repressed price competition in the steel industry. Last March when we put on our hearing before this committee we charged that the multiple basing point system repressed price competition in the steel industry. Then in the interim the Corporation prepared two documents in which it said that the basing point system did not repress price competition. Then when Mr. Fairless came before this committee he made some very astonishing admissions, at least they seem very happy to us because they seem to clear up the controversy that has existed between the Federal Trade Commission and some of the experts in the steel industry.

Mr. Fairless admitted that when the basing point system was followed, that it eliminated price competition in the steel industry. That was a very significant admission. Now with that admission, I want to show just how that was brought about. Mr. Wooden brought into the record a statement of Mr. Gregg, vice president of the United States Steel Corporation, in which Mr. Gregg admitted when the basing point system worked, it did repress price competition in the steel industry.

Mr. GREGG. To answer your question specifically, if that plan were universally followed there would be no competition insofar as one element of competition is concerned, namely, price.

Then Mr. Wooden asked Mr. Fairless:

I take it, Mr. Fairless, that you are in agreement with Mr. Gregg to the effect that if the system is followed, and to the extent that it is followed, there is no competition in price; is that right?

Mr. FAIRLESS. Well, I thought I had made myself clear.

Mr. O'CONNELL. Well, the answer is "Yes," but you say that, as a practical matter, the system is not followed?

Mr. FAIRLESS. I have answered it that way. All the things you said, Mr. Wooden, if they were true, then your conclusion, or the conclusion I assume that you are striking for, would be true.

So he conceded the point, and we think that is a very significant admission.

Now it becomes a question of how much the basing point system is followed in the steel industry, as Mr. Fairless' whole defense was that the basing point system is sort of a shadowy thing that stands there and nobody takes advantage of it, they are always departing from it, and naturally that suggests, why have it in the first place?

The CHAIRMAN. The committee is aware that I was necessarily away all last week while the presentation was being made by the steel industry. Am I to understand from what you say now that the steel industry defended the basing point system but said at the same time that it was not followed?

Mr. BALLINGER. Apparently, as I get it, they did not defend the basing point system. They said competition existed in the industry because of departures from it.

Mr. WOODEN. They defended, of course, the basing point system. They put in these two pamphlets——

Mr. BALLINGER (interposing). I say Mr. Fairless' testimony.

The CHAIRMAN. I am talking about the industry. This pamphlet which was offered for the record by the industry was a defense of the basing point system, was it?

Mr. BALLINGER. Yes, of the basing point system.

Mr. WOODEN. It was not offered by the industry, Mr. Fairless was careful to emphasize, but by the Corporation; but it is a defense of the system from the industry standpoint, not from the Corporation standpoint.

The CHAIRMAN. But at the same time, the testimony was that the basing point system thus defended is not followed, is that right?

Mr. WOODEN. That is true.

Mr. BALLINGER. It is this way. They said in the pamphlet which they prepared³ when the basing point system worked that a system of identical delivered prices was still a competitive price situation in the steel industry. Then Mr. Fairless testified that if the basing point system were followed it eliminated price competition. In other words, Mr. Fairless' testimony was in direct opposition to what the document had said. He had taken an entirely new position in defense of the basing point system, maintaining it did not repress price competition because it was departed from, not because it was adhered to, conceding if it was adhered to it was monopolistic in that it eliminated price competition.

If we had known Mr. Fairless was going to say that, we wouldn't have taken all the trouble we did to prepare Mr. Wooden's document and Mr. White's document, trying to prove when the basing point system operates, it represses price competition. We got that concession from Mr. Fairless. We think that is significant because it brings the Steel Corporation and the Federal Trade Commission into agreement on the theory of the system.

Now the question is how far the system is departed from in actuality. I think some significant things have been introduced here. First Mr. Fairless admitted during the N. R. A. period the basing point system worked beautifully, so we may assume from that that price competition was eliminated in the steel industry during the N. R. A. days. Then Mr. Wooden read a statement into the record by Mr. Irvin where he said as late as 1936 that Mr. Grace, president of the Bethlehem Steel Corporation, must have been speaking facetiously when he said that U. S. Steel would cut below the base prices of Bethlehem Steel Corporation. I think that is rather significant, because it shows it would be rather a joke in the steel industry if anybody did that.

Then Mr. Wooden showed that many of the provisions of the N. R. A. code which are absolutely necessary if you are going to make the basing point system work, that there are certain things that you have to have standardized if you are going to get identical delivered prices, are still in existence. You have to have standard switching charges and you have to prevent trucks from breaking up the price structure, and you have to implement it various other ways. Mr. Wooden showed many of those provisions were carried on after the expiration of the code and many of them are still in force today.

Finally, we come down to identical bids on Government business and used by the United States Steel Corporation, that about 90 percent

³ "Exhibit No. 1418", see p. 52.

of the bids were identical delivered prices, showing, I think, that the basing point system was working very well on those bids.

The question remaining, therefore, is, How serious and how numerous are the departures in private business? We can't answer that question, But if the basing point system works as well in private business as it does when the steel industry does business with the Government, you might say the steel industry is 90 percent monopolistic and 10 percent competitive.⁴

⁴ The percentages in this and the following paragraph were materially changed, the percentages above stated being found to be in error. The fact appears to be that during the particular limited period of time involved, there was, according to the data submitted by the Corporation, no notable uniformity in bids to the Government such as characterizes the system when it is adhered to. As shown by the Department of Justice in their exhibit 1349, part of the period covered by Corporation's data was one of "price confusion," "exceptional weaknesses in the prices of many steel products," and marked by "many companies" beginning the "quotation of base prices, especially for flat rolled products like strip, sheet, or plates at their own mills."

The situation during more typical periods is shown in bids to the Navy Department during 1935 and 1936. (See exhibits 2240, 2241, and pp. 392 and 393 of the verbatim record.) In one case there were 43 bids, identical to the penny, in the amount of \$15,583.48, and in another there were 31 bids, identical to the penny, in the amount of \$20,727.26. The whole matter of the significance of the percentage errors referred to is covered by the letter of Mr. Irving S. Olds, chairman of the Board of the Corporation, to Chairman O'Mahoney, dated October 4, 1940, and the letter of Walter B. Wooden in comment thereon dated November 29, 1940, both of which are in the record. (See hearings before T. N. E. C., Part 27, p. 14691, and 14693.) In any event, it should be obvious that the merits and demerits of any system cannot be determined by the extent of temporary departures from it.

The argument advanced in the paragraphs covered by this footnote is that the high percentage of identical bids on Government orders from the steel industry is a refutation of the contention of the representatives of the Steel Corporation before the Temporary National Economic Committee that the basing point system is a "shadowy thing," which is practically disregarded in the determination of steel prices. The staff of the Commission feels that this argument is not invalidated, because the United States Steel Corporation submitted data to the Committee which applied to a very limited period, and a period during which the basing point system in the steel industry was temporarily abandoned because of price-cutting. The staff of the Commission is of the opinion that there is ample evidence in a number of previous studies conducted both by the Federal Trade Commission and other governmental agencies, such as the National Recovery Administration, to show convincingly that the basing point system in the steel industry is closely observed by the industry, with the result that a very high percentage of bids on Government purchases have been identical to the penny.

LETTER TO SENATOR O'MAHONEY FROM BENJAMIN F.
FAIRLESS AND REPLY THERETO BY WALTER B.
WOODEN ¹

UNITED STATES STEEL CORPORATION,
February 1, 1940.

Hon. JOSEPH C. O'MAHONEY,
Chairman, Temporary National Economic Committee,
United States Senate, Washington, D. C.

DEAR SENATOR O'MAHONEY: My attention has just been called to certain statements made by Mr. Willis J. Ballinger, Director of Studies of the Federal Trade Commission, at the hearing before the Temporary National Economic Committee on January 30, 1940, in which Mr. Ballinger purported to summarize some of my testimony at previous hearings. I was not present at this hearing on January 30, 1940, as I had been informed by representatives of the Federal Trade Commission at the conclusion of the hearing on the preceding day that the Federal Trade Commission had no further questions to ask of Mr. Avery C. Adams and myself, and that we were excused from attending the hearing on January 30, 1940.

As events beyond your control prevented you from attending any of the hearings at which I was a witness, I think it is proper for me to state to you that the summarization of my testimony so given by Mr. Ballinger is not accurate and gives a meaning entirely different from that conveyed by my complete testimony. I respectfully ask that before you and the other members of the Temporary National Economic Committee reach any conclusion, my entire testimony be considered, rather than any summarization thereof given by Mr. Ballinger or by any other representative of the Federal Trade Commission.

As reported on page 395 of the Verbatim Record of the Proceedings on January 30, 1940, Mr. Ballinger stated: "Mr. Fairless admitted that when the basing-point system was followed that it eliminated price competition in the steel industry. That was a very significant admission. * * *"; and then quoted a few excerpts from my testimony, apparently in an attempt to support his further statement (also reported on page 395) that "when the basing-point system was observed, Mr. Fairless clearly conceded that price competition was eliminated from the steel industry. * * * Now it becomes a question of how much the basing system is followed in the steel industry, and Mr. Fairless' whole defense was that this thing, the basing-point system, is sort of a shadowy thing that stands there and nobody takes advantage of it, they are always departing from it, and naturally that suggests why they have it in the first place. * * * Apparently, as I get it, they did not defend the basing point system. They said competition existed in the industry because of departures from it."

Another statement by Mr. Ballinger to the same effect is reported in the first column on page 396 of the Verbatim Record of the Proceedings on January 30, 1940.

May I bring to your attention that Mr. Ballinger failed to cite the following portions of my testimony, which I think throw some additional light on the character of my testimony relative to the particular points he was discussing:

(Extract from page 318 of Verbatim Record of Proceedings on January 26, 1940):

"Mr. WOODEN. Mr. Fairless in that connection, even when the basing-point system is working one hundred percent and producing an identical delivered price, your mill net realizations fluctuate even then, do they not?"

"Mr. FAIRLESS. The basing point system works one hundred percent every day, twenty-four hours of every day, but it doesn't result in uniform prices because that isn't the reason that the system is in vogue or practice."

(Extract from page 319 of Verbatim Record of Proceedings on January 26, 1940):

¹ Hearings before Temporary National Economic Committee, Pt. 27, p. 14688.

"Mr. FAIRLESS. I would like most emphatically, if I have that ability, to once and for all state our position in so far as the basing-point system is concerned. Our contention is that breaks in prices are not a breakdown to any degree of the so-called basing-point system. We contend that the basing-point system was in effect and worked just as well when sheets and other flat rolled products sold for eight dollars a ton under the market as it did when they sold definitely on the market.

"There is no relationship, and to constantly be asking us the question about the breakdown of the basing-point system we don't believe is a fair presentation. Everybody, of course, is entitled to their own opinion of the basing-point system, but we contend that the basing-point system is only a vehicle which we use to merchandise our products. We have told you we use it because we know of no better method to merchandise our product. There might be, and if out of these hearings could come that, we would be the first to welcome it.

"Now so far as competition, the fact that you have basing points and that prices are quoted as applying to those basing points for various products, and the fact that those prices are not maintained or are maintained or are reduced, so many dollars one time and more or less dollars at another time, is in no way in relationship to the basing point system is our contention, and I would like to make that clear if I can."

(Extract from page 341 of Verbatim Record of Proceedings on January 27, 1940):

"Mr. WOODEN. Now I also recall that you testified yesterday afternoon that you agreed with Mr. Gregg, Vice-President of your company, when he testified that if the basing point systems were fully operative there would be no competition in price. Is that correct?

"Mr. FAIRLESS. That is not correct.

"Mr. WOODEN. What is your position with reference to that?"

* * * * *

"Mr. Fairless. My contention is that competition exists even although two or more companies arrive at the same price or have identical bids, providing, of course, that the conclusion is arrived at legally. It seems to me that when two or more companies are interested in getting a piece of business, tonnage, a contract, that has to do with steel, you immediately have competition. The fact that each of those companies has announced prices to the public certainly prevents them from charging any price that they might choose to charge."

(Extract from page 342 of Verbatim Record of Proceedings on January 27, 1940):

"Mr. Fairless. What I did say, Mr. Chairman, was this, that if all steel companies—if all steel companies—had basing points and posted their base prices, which is to begin with a competitive situation, but if they did post their prices and they did quote in respect to steel tonnage in a territory, or any territory, and they used the nearest basing point and applied the base price that had been published by the company that governed or controlled that basing point, and added all the charges, extras and all the transportation charges, there would be obviously uniform price arrived at, but that doesn't mean that that would not still be a competitive price so far as competition is concerned, because the basis to begin with, the base price, was competitive, bound to be competitive."

Various statements made by Mr. Ballinger and Mr. Wooden at the hearing on January 30, 1940 seem to me to convey the impression that the testimony of Mr. Adams and myself was contrary to and not in support of the pamphlet on the basing point practice, submitted to the Committee by United States Steel Corporation as Exhibit No. 1418. That is not correct, and I hope that you and each other member of the Committee will read this pamphlet in its entirety before reaching any conclusion.

May I request that this letter be made a part of the record of the Temporary National Economic Committee?

Respectfully yours,

BENJAMIN F. FAIRLESS, *President*.

BFF:MRW

Copy to: Mr. Willis J. Ballinger, Director of Studies, Federal Trade Commission, Washington, D. C.

FEDERAL TRADE COMMISSION,
Washington, February 6, 1940.

Hon. JOSEPH C. O'MAHONEY, Chairman,
Temporary National Economic Committee, United States Senate,
Washington, D. C.

DEAR SENATOR O'MAHONEY: The letter of Mr. B. F. Fairless, president of the United States Steel Corporation, to you under date of February 1, 1940, has come to my attention through a copy which he sent to Mr. Ballinger. The statement is noted that various comments by Mr. Ballinger and me at the hearing of January 30 imply that Mr. Fairless' testimony was contrary to, and not in support of, the Corporation's pamphlet submitted to the Committee as Exhibit 1418. Such a conclusion is now challenged by the Corporation.

There are other portions of Mr. Fairless' testimony to which attention should be called, as well as those set forth in his letter. Taken collectively, they support the challenged conclusion. They also support the comments of Mr. Ballinger to which exception is specifically taken.

The Corporation's letter quotes from Mr. Fairless' testimony on page 341 of the verbatim record that it was not correct to say that he had agreed with Mr. Gregg, a vice-president of the Corporation, who had said that if the basing-point system "were universally followed, there would be no competition in so far as one element of competition is concerned, namely, price." Yet Mr. Fairless had previously testified, as shown on page 317 of the verbatim record, as follows:

"We will concede, if that is the point we are trying to make, that if base prices as announced were followed in every transaction, and that the nearest basing point to the consumer governed, and that the rail freight was added from that point, and the delivered price arrived at in that manner, there wouldn't be any competition in the Steel Industry. It would be a one price industry pure and simple."

Mr. Fairless had also testified that "As I read from the record, Mr. Gregg said substantially what I have just said." (Page 318 of verbatim record.)

By contrast with the foregoing, Mr. Fairless now quotes from his testimony on page 318 of the verbatim record, as follows:

"The basing point system works 100% every day, 24 hours of every day, but it doesn't result in uniform prices because that isn't the reason that the system is in vogue or practice."

Although Mr. Fairless made that claim, the Corporation, in its prepared statement to the Committee, quoted from a report of the NRA that "the outstanding characteristic of the basing point system is the fact that it puts rival producers on a footing of price equality with each other in all the consuming points over a wide area." (Exhibit 1418, page 37.) Mr. Fairless testified that this was "a true statement", although claiming at the same time that this did not preclude competition in such areas. (Page 318 of verbatim record.)

Taking these several quotations together, they amount to saying that if the basing point system is working 100% there would be no price competition, but that although the system works 100%, 24 hours of every day, it does not result in uniform prices. They amount to saying also that the system is not intended to produce uniform prices although that is its outstanding characteristic.

Mr. Fairless' letter also cites his testimony on page 319 of the verbatim record to the effect that the fact that basing point prices "are not maintained, or are maintained, or are reduced so many dollars one time and more or less dollars at another time is in no way in relationship to the basing point system." He testified that such "is our contention and I would like to make that clear if I can." He further testified that "our contention is that breaks in prices are not a breakdown to any degree of the so-called basing point system," and that "the basing point system was in effect and worked just as well when sheets and other flat rolled products sold for \$8 a ton under the market as it did when sold definitely on the market."

Such contentions are equivalent to saying that the system whose outstanding characteristic is to put rival producers on a footing of price equality everywhere works just as well when steel products are sold far below the equal delivered prices which the system contemplates. They are the equivalent of saying that while reductions below the market price of the system have no relationship to the system itself, nevertheless, the system is in effect and works just as well when prices are being made below the market price reflected by the system. If, in

fact, price reductions have no relation to the system, it would follow that the system, as such, tends to maintain prices on a higher level.

In the concluding parts of Mr. Fairless' letter, his testimony on pages 341 and 342 of the verbatim record is cited, to the effect that competition exists even where producers make identical bids and that as long as the base price is competitive the whole basing point system is competitive, notwithstanding that it produces identical delivered prices. This position cannot be reconciled with Mr. Fairless' testimony on page 317 that if delivered prices were arrived at by adding rail freight from the governing basing point to the announced base price "there wouldn't be any competition in the Steel Industry." Nevertheless, the position that the system is competitive is the main theme and thesis of the Corporation's pamphlets submitted to the Committee as Exhibits 1418 and 1410.

Since you were not present when Mr. Fairless gave his testimony, it would be desirable, as he suggests, that his entire testimony be considered, and not only the portions which he and I have called to your attention. There is not the slightest objection to having Mr. Fairless' letter made a part of the record, as he requests, but may I not ask that this letter of comment be similarly received?

Respectfully yours,

(Signed) WALTER B. WOODEN,
Walter B. Wooden,
Attorney.

Copy to: Mr. Benjamin F. Fairless, President, United States Steel Corporation,
New York, New York.

INDEX

	Page
"Acceleration principle".....	14
Adams, A. C., cited.....	102, 145-146
Basing-point system:	
Alternatives to.....	78-88
Competition and.....	92-93
Effects of.....	1-4, 56, 58-60, 88-89, 106, 123
Historical material.....	41-43
Observance of, degree of.....	105-106, 142-148
Operation of.....	1-5, 31-41, 63-78, 92, 110-148
Reasons for.....	2, 24-25, 45-50, 58, 69-70, 75, 88-89, 107-110, 123
Violation of.....	1-2, 7, 106
Bids, identical.....	51-52, 55, 107, 143-144, 146
Bope, Col. Henry P., cited.....	108
Business cycles and demand.....	11, 14-15,
	26, 28, 47-48, 56-58, 62-63, 79, 87, 88, 125-126, 132
Capacity:	
Computation of.....	61
Concentration of.....	58-61, 86-87
Distribution of.....	20, 85
Excessive:	
Amount of.....	25-27, 56-57, 61-63, 85, 87, 131-132
Causes of.....	62-63, 130
Effects of.....	3, 56-58, 132
Capital. (See Capitalization; Investment; Capacity; Equipment.)	
Capitalistic system: and competition.....	6, 9, 125-126, 130, 139-140
Capitalization.....	127, 129, 134-135
Chamberlin, Edward, Theory of Monopolistic Competition: cited...	25, 44, 129
Chicago basing-point.....	42, 60
"Chiseling".....	7-8
Collaboration among steel producers.....	92-110
Competition:	
Amount of.....	28, 31, 50-53, 81-86, 89, 106, 118, 120-129, 146
Characteristics of.....	92-93
Effects of.....	5-7, 71
"Imperfect".....	44-47, 129
"Perfect": characteristics of.....	11-12,
	43-44, 46-47, 49, 52, 55, 68, 74-75, 78-82, 90, 120-126
Regulation of.....	8
Restoration of: effects.....	5, 135
Restraint of:	
Evidences of.....	92-107, 115, 118
Necessity for.....	5, 28, 49
Substitution and.....	15-16
Costs:	
Additional (variable).....	11, 22-23
Assembly.....	16-17, 45, 133
Average.....	23-24
Characteristics of.....	11, 22-25, 29-30, 45, 47-48, 56
Fixed (overhead).....	11-12, 19, 22, 47-49, 134-135
Transportation.....	16-17, 36, 60-61, 70, 110, 121, 133
Cross-hauling:	
Causes of.....	114
Measure of.....	76-78
Waste through.....	2, 7, 58, 114-115

	Page
Daugherty, de Chazeau, and Stratton, Economics of the Iron and Steel Industry: cited.....	24, 31, 34, 41, 57, 59-60, 81, 109, 120, 124
De Chazeau. (See Daugherty, de Chazeau, and Stratton.)	
Delivery charges.....	102-105
Demand:	
Business cycles and. (See Business cycles.)	
Characteristics of.....	11-16, 45-46, 62
Elasticity of.....	11-12, 15-16, 23, 29, 46-47, 124-126
Sources of.....	13
Depressions. (See Business cycles.)	
"Differential," basing-point price.....	36
Discrimination. (See Mill net returns, variation in; Price discrimination.)	
Distribution:	
Channels of.....	21
Costs of. (See Selling costs.)	
Durability and demand.....	13-14, 125
Employment and steel prices.....	29-30
Equipment, immobility of.....	19
"Extras".....	40-41, 101-102
Fairless, Benjamin F., cited.....	102, 105, 106, 116, 124, 142-143, 145, 147
Fetter, Frank A.:	
Masquerade of Monopoly: cited.....	31, 54, 81
Testimony (T. N. E. C.).....	54-55, 65
F. o. b. mill price system.....	50, 53, 55, 79-89, 108, 115, 121, 135-139
Freight charges:	
Absorption of.....	2, 27, 32-34, 37-40, 43, 68-71, 74-78, 89, 113-119
"Phantom".....	34-36, 43, 63-74, 110-114, 116
Gary, Judge, cited.....	98
Geographic distribution of:	
Demand.....	13-14
Supply.....	16-18, 45
Grace, Eugene, cited.....	95, 96, 99, 105, 106, 128, 143
Gregg, Robert, cited.....	93, 124, 142
History of steel industry.....	41-43
Hook, Charles R., cited.....	95
Investment (See also Capitalization):	
Incentives for.....	20
Requirements, size of.....	19
Sources of.....	20
Iron Age, cited.....	96-98
Irvin, W. A., cited.....	105-107
Lamont, R. P., cited.....	104-105
Market, perfect.....	54-55, 121-122
Market inter-penetration.....	34, 122
Market penetration.....	34
Market territories: under assumed f. o. b. prices.....	83-86
Mill locations, defense of.....	133-134
Mill net returns, variation in.....	36-40, 52, 63-78, 87, 89, 116-119, 122-123, 136
Monopoly (see also Competition; Basing-point system, operation of):	
Government control, leads to.....	5-6, 8-9
Indicators of.....	4, 5, 129
Technical conditions and.....	8
National economy: function of steel industry in.....	28-30
National Recovery Administration code.....	43, 94-98, 103, 104, 138, 140, 143
National Recovery Administration: report of committee on basing-point system, cited.....	43, 45, 49, 53, 60, 63, 66-68, 75-76, 81, 93, 106, 114, 116-118, 128-129, 147
Natural market territory.....	37-40, 70
Obsolescence:	
Basing-point system and.....	3, 7
Investment and.....	20
Open-price system of price-quoting.....	49
"Phantom freight".....	34-36, 43, 63-74, 110-114, 116
Philadelphia: dominant steel market.....	41, 109
"Pittsburgh plus".....	1, 8-9, 31-32, 42, 59-60, 65, 80, 82, 104, 105, 107-109, 111-116, 122, 133, 138-139, 141

	Page
"Price absorption".....	32
Price agreements and collaboration in steel industry. (<i>See</i> Collaboration.)	
Price-cutting:	
Incentive to.....	23-24, 49
"Price absorption".....	32
Price discrimination.....	3-4, 63, 87, 89, 116-119, 122-123, 139
"Price leadership".....	7, 48-50, 86, 98-99, 105
Prices of steel, level of.....	29, 55-56, 58, 126-129
Prices, uniform: as a sign of monopoly.....	54
Profits.....	25-26, 55-57, 126-129, 135
Psychological factors.....	24
Ripley, William Z., cited.....	122
Schwab, Charles M., cited.....	115
Selling costs.....	25, 27-28, 76-77, 115-116
Sheet-producing mills.....	83-86, 99
Steel, cited.....	96, 134-135, 138
Supply, characteristics of.....	11, 16-25, 47-49
Switching charges.....	97, 111
Technology:	
Monopoly and.....	8, 56, 109
Plant design and.....	18
Progress of.....	28-29, 57
Thorp, Willard L., cited.....	61-63, 132
Tower, Walter S., cited.....	95
Transportation. (<i>See</i> Cross-hauling; Costs; Freight; Water transportation; Truck deliveries; Delivery charges.)	
Treanor, John, cited.....	5
Truck deliveries.....	73-74, 111
Tube manufacturers.....	99-101
Vested interests, defense of.....	130-138
Viner, Jacob, cited.....	44, 120
Water transportation.....	36, 70-73, 89, 104-105
Weir, Ernest T., cited.....	128
Wooden, Walter B., cited.....	145-146

BOSTON PUBLIC LIBRARY



3 9999 06351 930 8

